THE AMERICAN PRACTITIONER.

OCTOBER, 1881.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Communications.

ON CHOLERA INFANTUM.*

BY T. C. QUINN, M.D.

From the history, cause, symptoms, and anatomical lesions of cholera morbus and cholera infantum it is evident that they are one and the same disease, modified by age and organization; for nearly all the authors give heat, impure air, bad ventilation, and improper food as the predisposing and exciting causes of both diseases. Meigs says, "That it is not the heat of the season alone" that produces cholera infantum, "is proved by the fact that the disease is less frequent and fatal in some of the southern cities" than the northern ones. This only appears to sustain the evidence that heat of the season is the predisposing cause of the disease in that zone where it prevails; for the air, ventilation, and food of the South are as deleterious as in the North. But there is no great variation in the temperature in the South, neither is it ever low, and the texture of the human system is

* Read before the Clinton County Medical Association at Wilmington, Ohio, August 4, 1881.

continually in a more or less relaxed condition, which destroys to a great extent the susceptibility to that morbid irritability produced by heat; while in the North the annual variations in the temperature are extremely great, and the texture of the system is in a contracted condition from six to eight months in the year, which greatly increases the susceptibility to that morbid excitability which is produced by relaxation of the texture from a high temperature, and is an essential element in promoting the disease. Again: he says that the death-rate of cholera infantum for nine years was not in proportion to the mean temperature of the three summer months. This does not prove that heat is not the predisposing cause of the disease, for there might have been "two or even three weeks of low temperature, giving the month a low mean, and yet enough of days of high temperature to give the month a high mortality in cholera infantum." The evidences undoubtedly favor the conclusion that the real predisposing and exciting cause of both diseases is atmospheric heat, from the "fact that their prevalence is always in proportion to the heat of summer, increasing and becoming more fatal" with the elevation of the temperature, and declining with its fall. A few hot days in succession in May are sufficient to produce them, while a short period of cool weather will diminish or entirely suppress them. Again: they often prevail in rural districts in their worst form, where the only obvious cause appears to be heat. No doubt but the various impurities that exist in the air and unwholesome food increase the predisposition to the diseases; and the same is true of all other diseases.

But Prof. Miller, of Cleveland, says that "sewer-emanations do not seem to have any thing directly to do with the production of" cholera infantum, "except so far as they tend to impair the general health, and thus diminish the power of the system to resist any disease-producing influence; and sewer-poisons are no less abundant and deadly at other times than they are when cholera infantum cases are most numerous, and in the hottest weather decomposition is *favored* by the very rains which put a check on the ravages of cholera infantum."

Many of the authors class dentition as a powerful predisposing cause of cholera infantum, and at the same time endeavor to lead us to believe that it is a "disease of the cities especially." Meigs says, "The disease is only too common among all classes of the inhabitants of our large cities in the hot summer months, while in the country at the distance of but a few miles from a city in which it prevails extensively it is comparatively rare." If cholera infantum is a disease confined almost exclusively to cities, it would prove that neither heat nor dentition were predisposing causes. But such has not been proved to be a fact; for cholera infantum appears to be as prevalent and fatal in the country, in proportion to the heat and population, as in cities. Again: dentition is a physiological process going on at all seasons of the year, while cholera infantum prevails only in the hottest part of summer, and "the gum is a structure neither endowed with a high degree of sensibility nor supplied with nerves of extensive sympathetic relations;" and "the constant disposition of the child to put every thing in its mouth, and bite freely with its gums, proves them to be neither tender nor sensitive; and without these there can be no irritation." There never was a more fatal doctrine taught than "that diarrhea, a pathological condition, is a normal attendant on and a relief of a physiological process such as dentition." Thousands of lives have been sacrificed annually from neglecting infantile diarrhea, from a belief in this once popular but false doctrine. There are few physicians but have been called upon to administer to the relief of infants where a mild diarrhea has been permitted to continue until the little patient has been reduced to a hopeless state of exhaustion (from this belief) before medical aid was obtained. And yet there are physicians today who advise leaving a mild case of infantile diarrhea alone, for it "is a normal attendant on and a relief" to dentition, and that dangerous results might follow if checked before the process was completed; and they suggest an occasional dose of castor oil (*similia similibus curantur*) or briar-root tea, which are only calculated to hasten the little patient faster to the grave.

The character of the symptoms and anatomical lesions given by all the authors show but a slight difference between cholera morbus and cholera infantum; and this difference is readily accounted for if we take into consideration "that the life of an infant is not a normal state, but a progress toward it;" that the mucous membrane is extremely delicate; that the glandular structure is imperfectly developed; that "the blood-vessels are very permeable;" that "the transformation of the surface-cells is very rapid;" and that the peripheric nerves are more superficial and the ends larger in proportion than in adults, causing diseases to act more readily, the symptoms to progress more rapidly, and the termination to end more speedily, while the lesions met with in pneumonia and pleurisy are not entirely those marking these diseases in adults.

There are two classes of diseases considered under the head of cholera infantum, where the evidence is conclusive that they are different diseases, from the fact that the first class is non-inflammatory, and originates from a continued high atmospheric temperature, which expands all the human texture, relaxes the whole capillary system, enlarges the liver and renders it torpid from over-exertion, and producing a morbid irritability of the nervous system, causing a rapid influx of the blood into the mucous membrane of the alimentary canal, while the relaxed texture allows a rapid escape of fluids from the blood into the intestines, producing copious watery evacuations, depleting the system, causing prostration and collapse. The second class is inflammatory, and originates from sudden atmospheric changes such as hot days and cool nights. If a high temperature has reduced the power and tone of the muscles, heart, and arteries, expanded and relaxed the whole human texture, over-stimulated the secretive organs, and excited a morbid irritability of the system, and the temperature should suddenly fall, it would produce a sudden contraction of the whole capillary system, but more especially the cutaneous surface, expelling the blood from the vast network of superficial vessels to the internal organs, greatly congesting them, which would impair the mucous membrane of

the alimentary canal to a greater or less extent, preventing the capillaries from resuming their function, and producing inflammation, which would cause repeated attempts at evacuating the bowels, with a tendency to convulsions. This is sustained by the evidence that the non-inflammatory type of the disease predominates when there is a continued elevation of the temperature, while the inflammatory type predominates where there are sudden changes of the temperature, as we have in the latter part of summer and early fall.

The first class should be called infantile cholera morbus, and embrace cases of simple diarrhea where the intestinal evacuations are composed of serous fluids and undigested food, which may be alternately better and worse until they are reduced to a hopeless state of exhaustion, and those cases of "copious watery evacuations from the bowels, often attended by nausea and free watery vomiting," with symptoms of approaching collapse, and seldom "lasts but a few hours, hardly a few days, when it ends in recovery, death, or inflammatory disease of some portion of the intestinal tract." The second class should be called entero-colitis or dysentery, and embraces all those cases that are attacked with fever, vomiting, and frequent intestinal evacuations; and if composed of feces, serous fluids, and mucus, the symptoms indicate entero-colitis; but if the "evacuations are almost wholly mucus, more or less streaked with blood, and accompanied by tenesmus and straining," the indications are dysentery. But most of the writers "include all the intestinal troubles of hot months that occur in children less than two years of age under the head of cholera infantum or summer complaint," which produces confusion and complexity in the treatment that should be simplified as much as possible. If they were more definitely arranged according to the symptoms and lesions, and each treated under its proper head, there would be less discrepancy in the results of treatment, and I believe the mortality would be greatly reduced.

The most unfavorable symptoms in the first class are collapses, copious evacuations with rapid prostration, and where

the evacuations are checked the urine becomes scanty or suppressed, the pulse slow, pupils dilated, and the patient comatose. In the second class the most unfavorable symptoms are persistent nausea and vomiting, continued high fever, with frequent and painful evacuations, and rapid prostration and emaciation. In the chronic form the prognosis is very uncertain, for some of the worst cases recover, while other cases that appear much milder die in defiance of all treatment. It appears that recovery depends in a great measure on the stamina of the patient and the sanitary regulations instituted.

In the treatment of these diseases there is no crisis to depend on, no whims or imagination to antagonize the treatment; neither is there mind to "influence the bodily functions" and aid that "mysterious mental force" with faith, hope, and expectation in modifying the disease; but success often depends almost entirely on the management of the attending physician; for there are no diseases where proper management and judicious treatment do more to save life than in infantile diarrhea. Then if they are treated by those scientific pathologists and physiologists who rely on mint-water, and look upon the business of prescribing drugs as unscientific and beneath "the attention of the higher order of medical thinkers," the results will often prove disastrous; while success will generally follow the treatment of those "sound practitioners full of the humble but necessary knowledge" of practical therapeutics who "make an accurate therapeutical diagnosis" and have confidence enough not to change treatment every six hours for some new fandangle recommended without proof to sustain its merits.

Now if in the first class, or infantile cholera morbus, the attack commences with low temperature, prostration, and copious watery evacuations, and is caused by a morbid irritability of the mucous membrane of the alimentary canal, originating from expansion and relaxation of the texture by heat, then the indications for a judicious treatment would be first to establish rigid sanitary rules. The therapeutical indications would be to neutralize acidity, to allay morbid irritability, to increase the

contractility of the capillaries, and check the abnormal secretion from the surface of the alimentary canal, to prevent fermentation, to restore the natural secretions in the most important organs of depuration, and change the condition of the digestive organs to a normal state. Carbonate of lime is the only alkali that will neutralize acidity without increasing peristaltic action of the bowels.* Chlor. anodyne is superior in allaying the nervous irritability, and bismuth in checking the abnormal secretion from the intestinal surface without causing retention of morbid matter, while glycerin and calomel excel in destroying fermentation and arousing the glandular system without irritating the mucous membrane of the bowels. Sulphuric acid acts very favorably in some cases. Carbolic acid does good service where there is much nausea and vomiting, but requires great caution in its administration. The vaunted magical results claimed for ipecacuanha in this disease are doubtless a nihility, for when used alone it has always failed with me, whether given in homeopathic or any other pathic doses. Pepsin curdles the milk and increases acidity. Nitrate of silver appears to act as a cautery in the weakest solution. Astringents, except bismuth, given before the nausea is checked and the intestinal evacuations become natural, aggravate the vomiting or check the evacuations more than the abnormal secretion from the surface of the intestines, thereby causing retention of irritating matter. I never have derived any benefit from stimulants and tonics in the first stage of the disease, but the remedies that have given me the most satisfaction and proved the most successful in meeting all the indications and changing the morbid condition of the digestive organs to a normal state have been carbonate of lime, chlor. anodyne, bismuth, glycerin, and calomel. Enemas do not appear to be indicated, for there is no inflammation of the colon or rectum, and in their relaxed condition but little absorption can take place; while the enema increases peristaltic action, which is very essential to avoid as much as possible.

In the first three cases of collapse of cholera infantum I tried

* Prepared by Parke, Davis & Co., Detroit, Mich.

the stimulating treatment, consisting of whisky, ammonia, camphor, capsicum, and even tincture of cantharides; but it only appeared to aggravate the symptoms, increase the prostration, and hasten the fatal termination, which caused me to doubt the propriety of the stimulating treatment. On studying the pathology more thoroughly, the conclusions arrived at were that collapse originated from a waste of the fluid part of the blood, caused by irritability of the mucous membrane of the alimentary canal from expansion and relaxation of the texture, and that the most rational treatment would be to overcome this abnormal condition if possible. I decided in the next case to try ice, for the purpose of increasing the contractility of the capillaries of the stomach at least, and chloroform or hydrate chloral to allay the nervous irritability. Soon afterward I was called to see the fourth case, aged sixteen months. Its face was pale and contracted, pulse scarcely perceptible, extremities cold, thirst intensely great, and every thing given in the form of drink or food was either rejected by the stomach or passed by the bowels in from five to twenty minutes. Gave small lumps of ice often. Applied heat to the extremities and gave calomel gr. j, creta prep. gr. iij, hydrate chloral gr. j every hour or two. In twelve hours the evacuations had checked and reaction was fully established. Discontinued all medicine and gave food often in small quantities. It convalesced very rapidly.

Case fifth, aged four months, the condition was about the same as in the fourth case. Applied a cloth wrung out of cold water to the stomach, heat to the extremities. Gave a teaspoonful of ice-water often and the following mixture recommended by Prof. Davis, of Chicago: Carbolic acid, gr. iij; glycerin, ℥ ss; camph. tinct. opii, ℥ j; aqua, ℥ iss; ten drops every half hour until the vomiting was checked; and as soon as the stomach would retain it gave calomel gr. ss, creta prep. gr. iij, hydrate of chloral gr. j, every hour or two. The vomiting ceased and reaction was established in about six hours, but the diarrhœa continued until it became chronic. The little patient finally recovered.

I believe that the following treatment would prove very successful in similar cases: If seen soon after the onset of the attack apply a cloth wrung out of cold water to the stomach and heat to the extremities. Give small lumps of ice often and chlor. anodyne composed of morphia, Indian hemp, oil of peppermint, and capsicum; for it surpasses all the remedies that I ever tried in allaying the morbid irritability and checking the nausea and vomiting. As soon as the stomach will retain it, give calomel and carbonate of lime to arouse the secretions and neutralize the acidity.

In those cases where there are nausea and vomiting, with intense thirst and copious intestinal evacuations of serous fluids mixed with curdled milk or undigested food, keep the apartment cool, quiet, and well ventilated. Give small lumps of ice often, and deprive them of all food except corn coffee cooled with ice, as it contains considerable nutriment and has a decided effect in checking the vomiting and purging. If they should require more nourishing food, add the white of an egg or milk, or give barley-water and milk, and give the following medicine: Subnitrate bismuth ʒ j or ʒ jss, creta prep. ʒ j, glycerin ʒij, chlor. anodyne ʒ ss, aqua enough to make ℥ ij, teaspoonful every two or three hours. If the stomach and bowels are warm, apply a cloth wrung out of cold water; if cool, a mustard-plaster or warm poultice. If nausea and vomiting still persist, or if there appear to be a partial suspension of important secretions, such as urine and bile, or if the intestinal evacuations are offensive, add one grain of calomel to three or four doses of the bismuth mixture. It will seldom fail in arousing the secretions and changing the character of the discharges. If the stomach rejects every thing given, follow Dr. Jacobi's plan: "Deprive them absolutely of every thing in the form of either drink or food or medicine" from six to twenty-four hours, if not relieved sooner; for it is the only salvation in some cases.

In those cases where the vomiting and diarrhea cease, the urine becomes scanty or suppressed, with dilated pupils, slow pulse, and coma, give a cathartic of calomel and follow it with

iodide of potassium and diuretics. Some twelve years ago I was called to see a patient aged twenty months who had been under treatment for cholera infantum for two weeks, and the attending physician had given it up to die. It was comatose, pupils dilated, pulse slow, urine suppressed, vomiting and diarrhea checked, and greatly emaciated. I had but little hope of the patient and less in treatment, but gave calomel gr. v and followed it with iodide of potassium gr. j every four hours, with diuretics, and had the satisfaction of seeing it recover. I have treated two milder cases since in the same manner, with like results.

In the mild form, keep the apartment cool, quiet, and well ventilated; regulate the diet; and give the bismuth mixture.

In the second class, or entero-colitis and dysentery, the symptoms and pathology differ greatly from the first class. Here the attack commences with elevated temperature, nervous exaltation, with frequent and painful intestinal evacuations composed of serous fluids, undigested food, and mucus or "almost wholly mucus more or less streaked with blood." True, there is the same morbid irritability, the same unnatural influx of blood to the mucous membrane of the alimentary canal, but it originates from irritation, inflammation, and repeated attempts at evacuation. Then the indications would be to remove all morbid products from the intestinal tract, to allay pain, to reduce irritation and inflammation of the mucous membrane, to check peristaltic action and subdue the fever. Calomel is the most favorable remedy to cleanse the alimentary canal, on account of its easy administration, its thorough effects, its sedative influence on the mucous membrance, and if there is vomiting the only remedy that is likely to be retained and of any benefit. Opium allays pain and inflammation and checks peristaltic action, while gelseminum and cold baths subdue the fever. Dr. Jacobi recommends from a dram to a dram and a half of subnitrate or carbonate of bismuth daily. He says, "Not only does it cover and protect the mucous membrane, but it also has a decided anti-fermentative effect. Thus it is surely indicated in irritated

conditions of the mucous membrane. It seldom fails when given in sufficient doses. There is no harm in sometimes giving it in such doses that part of the introduced material will pass through the entire length of the intestinal tract without undergoing decomposition." I tried the subnitrate of bismuth in two grave cases of entero-colitis with successful results. One was given a dram and the other a dram and a half daily. If there is much blood in the intestinal evacuations, fluid extract of ergot or witch-hazel acts very beneficially. If astringents are indicated to check the diarrhea that follows either entero-colitis or dysentery, fluid extract of coto bark acts more favorably than any astringent that I have used. Turpentine and balsam copaiba in combination with opium do well in some cases.

But among all the agents for the relief of these diseases none is comparable to opium; for it allays the pain, "quiets irritation, calms the pulse, softens the skin, promotes balmy sleep," prevents exhaustion, and is of great utility and value in the cure of all inflammatory diseases of the bowels. The dangers of opium have been greatly exaggerated, and there is undoubtedly too much timidity manifested in the administration of opium to infants, for its effects are easily watched and controlled by commencing with small doses and being guided by the effects obtained. Cathartics are seldom indicated except in the commencement of the disease; for an infant's intestines are smaller, the contents more liquid, and the peristaltic action more active than in adults; therefore cathartics are not indicated, but generally aggravate after the bowels have once been thoroughly evacuated. But should indications arise that require a repetition of a cathartic, it should be of the mildest and least relaxing character, and should not be repeated often, for they will leave the alimentary canal in such a relaxed and debilitated condition when the inflammation subsides that chronic diarrhea will follow. The best remedies to meet the indication are rhubarb and leptandrin, for they give tone to the digestive organs, while salines and castor oil leave them in a weak and loose condition.

Enemas theoretically are strongly indicated and are highly recommended. They have seldom given me satisfactory results, for there is generally irritation of the anus and rectum, and their use produces pain and increases peristaltic action; and the same is true of suppositories.

The first important point in the treatment is to give a full cathartic dose of calomel, or calomel gr. j, creta prep. gr. iij every three hours, with tincture of opium and gelseminum, until the bowels are thoroughly evacuated. If the temperature runs high, give a tepid or cold bath or use the cold pack. After the bowels have been freely evacuated give an alkali and keep the patient partially under the influence of opium, and continue the gelseminum and cold pack until the symptoms are relieved.

In the chronic form, have the sleeping apartment well ventilated. Give the patient a warm bath daily, and have it carried or hauled into the open air when the weather will permit. If of the nature of chronic diarrhea, give belladonna to stimulate the circulation and check the abnormal secretion from the surface of the alimentary canal, strychnia to increase the tone of the digestive organs and system in general, and carbonate or phosphate of lime to neutralize acidity. If of a dysenteric character, give strychnine, turpentine, and opium. In both forms the following will generally make a decided change for the better: Calomel gr. j, creta prep. gr. iij, every four hours until three or four doses have been given. In some cases the benefit is permanent; in others it only lasts a few days.

A few years since I had a chronic case of infantile diarrhea which grew worse and more emaciated in defiance of all treatment until I gave it the calomel and carbonate of lime. In twelve hours it was playful. The intestinal evacuations were smaller, less frequent, and more natural, and it continued to improve for four or five days and then grew worse. In ten days I repeated the same remedies with the same result. As it was claimed that the continued use of calomel produced serious and debilitating effects on the system, I feared to continue its use

where there was so much debility and emaciation. There are cases of the disease that gradually emaciate and grow worse in spite of all medicines and sanitary regulations, but will improve when fed on mellow sweet apples or any food that they continually crave.

Doubtless my liberal use of calomel in the treatment of infantile diarrhea will be severely criticized, for fashion rules current medical opinions and modes of practice, and all who do not sustain the current ideas and sentiments of the times are considered antediluvians in medicine. The popular opinion of the medical profession denounces mercury as a dangerous and worthless remedy except in syphilis, and a few years since it was considered as such even in syphilis. But after years of vain and fruitless trials of all the vaunted anti-syphilitic remedies they were compelled to return to the Samson of materia medica, as the eclectics slurringly stigmatized mercury. Now it is considered a specific for syphilis by nearly the whole profession and many of the eclectics. Some years ago the use of mercury was carried to the extreme, as many remedies are today, and its abuse was so perceptible that the prejudices of the people were aroused against it. Many of the profession, fearing the consequences, began to reject it; and after the great Edinburgh committee had spent two years in experimenting with it on healthy dogs and proclaimed to an astonished profession that mercury would not increase the biliary secretions, the medical leaders began to denounce it as not only a worthless but a dangerous remedy, and many of the profession followed pellmell in their wake, and prejudice has carried many beyond the limits of sound judgment, and they claim that there are no indications for its use except in syphilis. Yet no unprejudiced physician who has used calomel can deny that it has a special influence as a cathartic, and if there is vomiting the only one that is likely to be retained and prove beneficial if the vomiting is associated with constipation. And if there is any value to be placed in the experience of unprejudiced and observing practitioners, calomel has a controlling influence in many of the inflammatory diseases. All know that

medicines do not have the same effect in health as in disease. For instance, quinine has no apparent effect on a healthy spleen, yet it will reduce an enlarged one. And the same is true of ergot. Salicylate of soda has no effect on the temperature in health, but will reduce it in fever. It is claimed that mercury will reduce the number of red globules in the blood in health, but when they are diminished by syphilis they will increase and become normal under the use of mercury. Then may it not reduce the biliary secretion in health and increase it when diminished by disease? Annesly, in experimenting on dogs, found that mercury reduced the vascularity of the mucous membrane of the stomach and bowels, while all admit that it will prevent fermentation. The evidence, both physiological and experimental, favors the conclusion that mercury reduces the vascularity of the mucous membrane, prevents fermentation, and acts on the whole lymphatic and glandular system, arousing the secretions, when deficient, to a healthy action.

But to decide whether calomel is beneficial in the treatment of infantile diarrhea, the evidence is to be obtained principally by bedside observation, and not by experimenting on healthy dogs. If "calomel is not a cholagogue, but diminishes the secretions of bile, it would not affect the question in the slightest degree;" for the main point to be decided is, Does it do good? The experience and observation of some of the most eminent practitioners of the age agree that it changes the character of the discharges, checks the vomiting, and modifies the condition of the digestive organs. If there is any thing in therapeutics of which I feel confirmed in from careful observation, it is the value of calomel to check vomiting and correct the secretions in infantile diarrhea. Then "because calomel has been indiscreetly used, because it has been prescribed as a matter of routine and continued day after day" until it has produced serious results, does it follow that it should be rejected as a worthless and a dangerous remedy? If so, we ought to reject all our most valuable remedies, for if abused nature or the grave could speak we should behold a long catalogue of remedies that have been

more detrimental to life and health than mercury. What a great blessing it would be to suffering humanity if the injudicious and routine use of all remedies were as perceptible as mercury.

NEW VIENNA, O.

RENAL PATHOLOGY.

BY J. C. REEVE, M.D.

It is probably safe to state that no portion of pathology is in so unsatisfactory a condition as that of the kidneys in relation to the various clinical forms of disease known as Bright's disease. Authorities are not in accord as to the tissue which first takes on abnormal action, the nature of the first departure from health, whether inflammatory or degenerative, and especially as to the great question whether the modifications of this disease which are pretty readily recognized during life are the result of different stages of a single disease or are the result of several distinct and independent diseases. Nor does this confusion exist for want of study and research, for a vast amount of patient research, clinical, chemical, and pathological, has been devoted to this intricate subject. Abundant evidence of the above statements can be found in the pages of any of the more recent writers. Thus Bartels* says, "I need not call attention to the vast gaps which exist at the present time in our knowledge of this special subject. They are clearly revealed by the contradictions which are found in the statements made by different authors in regard to purely histological lesions in the diseased kidneys. The expression made use of by one of our most deserved pathological anatomists (Rindfleisch) is true even at the present day: 'The pathological anatomy of the inflammation of the kidneys is in truth the most extensively studied, but at the same time the least finished chapter in one department.'"

* Ziemssen's Cyclopedia, vol. 15, p. 371.

Later still, Dr. Southey in the Lumleian Lectures delivered before the College of Physicians during the current year* says, "After all the work that has been expended in the closer investigation of the minute anatomy of the different diseases of the kidneys, and all the clinical observations which have been published in the last fifty-four years upon the same subject, the questions whether there be one or more varieties of diffuse renal disease, and what is the real first cause of the renal degenerations to which he [Bright] called special attention, remain much where he left them."

Under these circumstances we are very sure that we shall do the readers of the PRACTITIONER good service by presenting the views of a very eminent French authority upon a subject of so great practical interest and importance. We therefore translate from the thirteenth volume of the *Nouveau Dictionnaire de Medecine et de Chirurgie*, which has just appeared, the concluding portion of the article "Reins," written by M. Labadie-Lagrave. It is entitled "General Considerations upon the Diffuse Nephrites and Bright's Disease."

In the course of this article upon the different forms of diffuse nephritis, extending to the whole organ, we have stated succinctly the reasons which have caused the rejection of the theory of unity. In the great majority of cases, authorities say, acute nephritis kills the patient or terminates in recovery. The chronic nephrites take on from the beginning [*d'emblee*] the chronic character, and the well-defined assemblage of symptoms attributed to chronic *interstitial* atrophic nephritis (third stage of Bright's disease) never follows the complex of symptoms known as chronic *parenchymatous* nephritis. Finally, it is said, these correspond to each of the clinical forms of Bright's disease—renal lesions absolutely dissimilar, as well macroscopically as well as in the nature of the elements, epithelium or stroma, which are affected.

Bright's disease has therefore been divided into three distinct, dissimilar forms, both clinically and anatomo-pathologically.

a. Acute nephritis, parenchymatous for some, interstitial for others; characterized clinically by rapid evolution, scantiness of urine, abundance of albumen, frequency of hematuria and uremic accidents,

* British Medical Journal, April 9, *et seq.*, 1881.

great amount of edema, and numerous effusions into the serous cavities, running a speedy course. Termination death or complete recovery.

b. Chronic parenchymatous nephritis, having for clinical characteristics scantiness of urine, its richness in albumen and casts, abundance of edema, rarity of hematuria and other hemorrhages, absence of cardiac hypertrophy, extreme rarity of uremic convulsions, and albuminuric retinitis. Duration tolerably brief, eighteen months at the most; termination fatal. The autopsy shows the large white kidney, sometimes the small fatty kidney, non-granular—fatty degeneration of the epithelium, of inflammatory origin according to some, retrogressive according to others.

c. Chronic interstitial nephritis, characterized by its insidious beginning, its long duration (ten years and over); by large quantity of urine, scantiness of albumen and cylinders, and edema; frequency of cardiac hypertrophy, which is never lacking in the advanced stages; frequency of retinitis, of convulsions, and of uremic coma. At the autopsy is found the small red granular kidney.

d. Amyloid degeneration, which has not well-defined clinical characteristics. It may occur independently or coexist with the chronic parenchymatous nephritis.

According to this scheme, diagnosis of the different forms of nephritis becomes a matter of marvelous simplicity. Unfortunately it does not correspond in all points with the facts.

Thus it has been established that the lesions found at the autopsy are not always such as the clinical history of the patient indicated. The large white kidney and its changes have been found after all kinds of a symptomatology; conversely, in subjects who have presented all the symptoms of parenchymatous nephritis the post-mortem examination may show something quite different from the large white or even from the small fatty kidney.

There is reason for asking also if there exists between the small fatty kidney found in many cases of chronic parenchymatous nephritis and the small granular red kidney that absolute opposition which the adversaries of the unitary theory maintain, in order to deny that chronic interstitial nephritis can be consecutive to the nephritis termed parenchymatous. Weigert maintains the contrary, and with many appearances of right.

Besides, the transformation of the two forms of chronic nephritis one into the other, however rare, can no longer be contested, since unexceptional cases have been published, such as those of Bartels.

In order to emphasize the antagonism which is admitted between

the symptoms of the two forms of chronic nephritis, the pathognomonic value of certain differential characters has been forced. Thus it has been said, and justly, that chronic interstitial nephritis, when somewhat advanced, is almost always complicated with cardiac hypertrophy, but that this complication is constantly lacking in chronic parenchymatous nephritis, which is absolutely false. The truth is that *hypertrophy of the left ventricle may complicate all forms of nephritis, and there are the more chances of meeting with it the longer the nephritis has lasted.* This appears clearly from Bamberger's statistics given in the chapter on complications of the nephrites.

Weigert, of Breslau, has more lately published facts which tend to break down this wall of separation built up by clinicists and pathological anatomists between the three forms of nephritis, and these facts deserve detailed mention.

First of all, Weigert has observed a form of nephritis, chronic in course, covering not less than eighteen months, which is accompanied during life by edema, constantly by hypertrophy of the left ventricle, often colossal, with or without dilatation, by retinal lesions and by hemorrhages. The urine, normal in quantity, is rich in albumen, casts, and red and white globules. The fatal termination is precipitated by uremic accidents. At the autopsy the kidney is found of normal dimensions or somewhat increased in size, red in color or variegated, like the kidney of acute nephritis, but of much greater consistence. As to histological lesions, besides the inflammatory alterations of the epithelium of the glomerules and of the convoluted canals there is thickening of the capsules of Bowman, of the internal coat of the small arteries, and, in patches, hyperplasia of the interstitial tissue, with choking of the neighboring tubes and glomerules.

Here then are facts which it will be difficult to harmonize with the classic division.

As much can be said of another form of nephritis observed by Weigert which reproduces the clinical aspects of the preceding—edema, cardiac hypertrophy, lesions of the retina; urine rich in albumen, cylinders, and globular elements; multiple hemorrhages; terminal uremic accidents; and yet these are the anatamo-pathological characteristics: large white kidney; upon section the cortical portion is of a yellowish white, which contrasts with the bluish red tint of the cones of the medullary substance. Microscopical examination of such kidneys shows not only an abundant infiltration of rounded nuclei [*noyaux arrondis*] in the strona, but veritable cicatricial retractions of the interstitial conjunctive tissue, which have determined, in places,

atrophy of the renal tissue. A certain number of glomerules were shriveled up, in virtue of a similar atrophy, by retraction of the sclerosed conjunctive tissue.

How can these facts be made to harmonize with the current theories as to the diversity of the forms of nephritis? Must we admit the existence of *mixed forms*, resulting from a combination of the lesions which have been considered peculiar to parenchymatous nephritis and those of interstitial nephritis? This eclecticism, which should apparently conciliate all, is by no means seductive to us. As we have repeated several times in the course of our description, the most recent researches into the pathological anatomy and the pathogeny of the nephrites appear to us destined to reëstablish in the near future the doctrine of the unity of these forms of disease, more or less amended. We will repeat, in the brief manner imposed by the limits of this article, the reasons for this opinion.

The most recent researches in regard to experimental nephrites—the only ones in which we can follow the minute lesions from day to day—have taught us that every nephritis is epithelial in the beginning. It is so with cantharidal nephritis studied by Cornil in France, by Browicz in Germany, with the saturnine nephritis described by Charcot and Gombault, with the nephritis consecutive to ligature of the ureter. (Aufrecht.)

The same researches and numerous details gathered from human pathology teach us that every parenchymatous nephritis, however short its duration, is accompanied by interstitial alterations of inflammatory nature. (Cornil, Brault, Bartels, Wagner, Weigert.) The experiments of Charcot and Gombault with experimental saturnine nephritis tell the same story.

The researches of Gravitz and D'Israel demonstrate to us that in an animal the pinching of one of the renal arteries for about one or two hours develops an acute nephritis, and that this will terminate in atrophy of the kidney when the experiment is made on a young and vigorous animal. At the same time there takes place a compensatory hypertrophy of the kidney uninterfered with, or a hypertrophy of the left side of the heart when the renal increase of size fails. But in animals advanced in age, poorly nourished, in bad condition, there is an entirely different state of affairs. The hypertrophy of the other kidney and of the left heart alike fail to occur. The kidney, which is the seat of the experimental inflammation, has not time to atrophy. The animals succumb to uremic accidents or perish from effusions into the serous cavities.

These facts deserve to be compared with what takes place in the human subject. We have said that chronic albuminous nephritis leads rapidly to a pronounced cachexia, attributable to the abundant losses of albumen and to the state of denutrition of tissues infiltrated with serum. Now this clinical form of nephritis is always met with in subjects in whom nutrition is profoundly affected, in the scrofulas, the rachitic, the consumptive, those saturated with malaria, in women exhausted by repeated confinements, in dwellers in damp habitations, etc. Again: Weigert affirms that the large white kidney without pronounced interstitial alterations is always affected with amyloid degeneration, as may be demonstrated by micro-chemical examination. It may then be justly asked if the abundance of the edema and of the albuminuria, the absence of cardiac hypertrophy, and the scantiness of urine which is the consequence, the relatively rapid evolution of the chronic nephritis called parenchymatous, does not depend upon the fact that the inflammation is developed in a cachectic subject, in whom the nephritis, interrupted in its typical evolution by amyloid degeneration, has germinated in an uncongenial soil, and can not arrive at the atrophic stage by the favor of a compensatory hypertrophy of the left heart? In the following manner we may conceive the different stages of nephritis restored to its primary and original unity:

Under the influence of some cause of irritation the kidney is affected with inflammation—a parenchymatous inflammation—which affects the secretory elements, the epithelium of the glomerules and of the convoluted tubes. This initial phlegmasia is accompanied, like all inflammations, by a transudation of plasma and a diapedesis of the blood-globules into the zone affected.

This acute parenchymatous nephritis, when it does not terminate by the death of the subject, is susceptible of complete reparation. If, on the contrary, the causes which gave rise to it continue, if their action falls upon the kidneys at intervals more or less remote, the nephritis becomes chronic. As parenchymatous as it may have been at the beginning, the conjunctive tissue is invaded little by little—the capsules of Bowman first, the sheath of the vessels and the intertubular spaces afterward. Parallel with the choking of the glomerules and tubules by the conjunctive neoplasm there is developed a hypertrophy of the left ventricle which maintains the urinary secretion at its physiological level or even above it. Thus the renal lesion, despite its progressive evolution, remains latent until the period when the kidneys are in a condition of advanced atrophy.

If the nephritis becomes chronic in a subject debilitated by pre-

ceding diseases (scrofula, syphilis, etc.), by osseous or other suppurations, by insufficient food, the extension of the inflammatory action to the conjunctive stroma and the cardiac hypertrophy fail to occur. The renal lesions localize themselves in the epithelium. As inflammatory as they may have been in the beginning, they now take on a dystrophic character (amyloid and fatty degenerations). Hence the appearance of the kidney, which is of a dirty white color, because the epithelium of the exsanguinated cortical zone is degenerated, the kidney is tumefied because invaded by anasarca, in consequence of retention of the watery portion of the blood, of the insufficience of the cardiac muscle, and the state of denutrition of the walls of the vessels, which explains also the abundance of the albuminuria.

Such, in our opinion, is the new mode in which it seems right to view the disease which half a century ago received its being and baptism from Bright.

Certainly the restoration of the doctrine of unity can not efface the results acquired by fifty years' labors and researches. Far from chaining progress, it confirms it by consecrating the discovery of the man of genius who in 1827 established the existence of the clinical whole of which we have just described the modifications.

The article concludes with an extract from Bright's article in Guy's Hospital Reports for 1836, which gives a running sketch of the rise and course of a case of renal disease.

DAYTON, O.

FOREIGN CORRESPONDENCE.

My Dear Parvin: THE ROYAL HOTEL, EDINBURGH, June 29th.

You will see from above that we are on the march again. Tuesday we came up from Westgate. S. and I greatly improved by our stay in that quiet, breezy, fresh place. This morning we started for this most beautiful city, which we reached at 9.15, the sun having set but fifteen minutes before. The day was one of uninterrupted brightness, the ride one of unalloyed pleasure. We came by the Midland Railway, starting from the St. Pancras

Station, the finest railway-station, I suppose, in the world. It occupies a site of nearly ten acres. The span of the great shed is two hundred and forty-three feet from wall to wall. It is seven hundred feet long and one hundred feet high. Sixty millions of brick, eighty thousand cubic feet of dressed stone, nine thousand tons of iron, and thousands upon thousands of feet of glass and timber enter into the construction of this wonderful station. M. came to see us off. Almost every mile of this line of the Midland road runs near some object of interest. Should you like to hear about a few of them?

Well, the train has but fairly got under way when it dashes through Finchley Common, where in early times great meetings assembled to claim religious liberty, and were addressed by John Bunyan and other reformers. Two hundred and odd years ago General Monk used the Common as a camping-ground for the troops pending the restoration of Charles the Second. Before you have had time to furbish up your history on these points you come to Hendon, from whence you can see Harrow-on-the-Hill, where Byron went to school. Under an elm tree in the church-yard we are told the unhappy man wrote the lines,

> "How do thy branches, moaning to the blast,
> Invite the bosom to recall the past," etc.

Now a tunnel one thousand yards long, a church and vicarage standing upon an old Roman road laid out nearly two thousand years ago. Presently we come to St. Albans—once Verulam, near the *River Ver.* Much blood was spilled about here in Julius Cæsar's time. Albanus, a convert to Christianity, was beheaded here, having the distinguished honor of heading the list of English martyrs, of being canonized and having his name given to the new city. One could almost be willing to give up his head for such honors. Near this very pretty little place our friends of the Roses, White and Red, had their second little scrimmage. The genuine curfew bell that "tolled the knell of parting day," and gave notice to the inhabitants to "put out lights," is to be seen and heard in the clock-tower. Ten miles

further on, and near the line, you catch a glimpse of the house in which John Bunyan once hid from his pursuers who came suddenly on him and a lot of those terrible fellows, the Dissenters, as they were holding one of their "unlawful conventicles" on "Dallow Farm." A few stations beyond the train halts a moment at Bedford, prettily placed on the bank of the river Ouse, near an ancient ford—Bedford signifying town-on-the-ford. Those hardy people, the Danes, who now make such good farmers in our Northwest, came over from their little country and burnt the town some nine or ten hundred years ago. Here Bunyan, after quitting his badness, preached in the Baptist meeting-house for seventeen years. That he did so, settles the question which I have often heard raised as to his belonging to the water-forces—the navy, as it were. Here he was subsequently imprisoned, and in the cells of the gaol wrote Pilgrim's Progress.

Fifty miles beyond we rush into Leicester, situated on the eastern bank of the river Soar, and said, I have no doubt you will remember, to have been founded by King Lear nearly a thousand years before Christ. Richard III slept at the Blue Boar Inn while massing his men for the battle of Bosworth, and his body was brought here after that little affair and put in a stone coffin, which was subsequently used as a horse-trough. "To what base uses," etc. During the reign of Henry V a Parliament held here legalized the pleasant sport of burning heretics. Three hundred and fifty years back, within the walls of the abbey founded by one of the earls of Leicester, "was witnessed a scene humiliating to ambition, instructive to weakness and faith. Wolsey, after a life of pride and power, came hither as the victim of a vile king, "a wreck upon the shore of royal treachery." "Here the pride of the cardinal retreated from the insults of the world. He told the listening monks that he had come to lay his bones among them," and the next day he did so, declaring to the abbots and canons who had gathered about his couch, "If I had served my God as diligently as I have served the king, He would not have deserted me in mine old age."

Five miles beyond is Syston Station. "Here," we learn from

the town register, "was paid in 1599 to Peter Pollard, for helping to drive away the town bull that was sold, one penny." A Texan would n't have done it for that, would he? A year later "Thos. Pollard was paid twelve pence for removing the bull-hooks"—whatever those were.* And two years after this the town "paid to Lord Morden's players because they should not play in the church, the sum of twelve pence," which my friend Mahlstick would say was rough on the players. Seven years later "five hundred people died of the plague."

Ten miles beyond we fly through Hathorn—originally Hawthorne, where these trees show at their best, and as we went

> "The hawthorne shook sweet odors,
> Like a blessing, down
> From the snow-white blossoms
> Of its leafy crown."

That is, it would have done so in season. Our agricultural friends may be pleased to know that near this place lie the bones of Robert Bakewell, the man who invented the Leicestershire breed of sheep—a variety, by the way, whose meat is not to my taste as toothsome as the Southdown, however valuable their weight and wool may be to their owners.

Skipping a few stations, we come to Chesterfield, where, among others of the family, resided the fourth earl of Chesterfield, the author of some "Letters to his Son," a copy of which I wish could be placed in the hands of all our young men. They could consult it with advantage both to their minds and manners, particularly in presence of ladies. Near here Geo. Stephenson, the celebrated engineer, at whose centenary recently held there were such splendid ceremonies, died in 1848. This illustrious man, whose abilities did so much for the travel of the world, was the son of a fireman at a colliery, and when a boy occupied himself in herding cows. He learned to read and write at a night-school, and paid four pence a week to a Scotchman to teach him arithmetic. At twenty he became brakesman to an engine and took a wife. He added to his income by boot-

mending, clock-cleaning, and the like. He died the foremost man of all his time in the matter of railway-engineering.

A run of thirty miles brings us to Sandol, famous for Sandol Castle, where Richard Plantagenet, once its owner, fancying he should have the crown, offered the wager of battle, and soon

> "Before his castle gate,
> Mangled with wounds, on his own earth lay dead."

A half-hour's ride fetches us to Keighley, which, in itself without interest, has a borrowed charm in that it is near Haworth, the home of the Brontés—Currer, Acton, and Ellis Bell.

We begin now to near the summit of the line. Now we are on it, twelve hundred feet above the level of the sea. Naturally we begin to descend. The source of the Eden river reveals itself in a tiny waterfall. The country grows more fertile. Charming villas skirt either side of the road. Away to the left—to be seen only on a clear day—we catch a glimpse of the mountains of the lake district. In a little while snow-capped Skiddaw looms in the distance, and we get out at Carlisle for lunch. Somewhere about six hundred years ago Wallace captured the town, and afterward Bruce tried his hand at it. The first earl of Carlisle was an unprincipled young man, and, being convicted of having bargained with Bruce to betray his people, his head was sent to London and set on the bridge, and his four quarters distributed to "four good towns of England" as a warning to men of his kind.

After lunch I lit a cigar and took a nap, and saw not much more till we entered this Athenian city. Should you care to know what *I might* have seen—and had already seen on other visits—had I not had the smoke and sleep, see guide-books, from which it is but honest to say I have derived most of the foregoing. And speaking of this most convenient and useful and labor-saving variety of literature, it is immensely drawn upon to the right, to the left, and in front of me by a troupe of Cooke's American tourists, composed largely of schoolmarms and schoolmasters away on a holiday scamper, who are camping at this hos-

telrie for the nonce. From their very worn appearance they have had a hard day's fighting with the sights, and now, with Black and Murray and the lesser handbooks on their laps, they are writing up the events. I hear they have been on the go since five this morning—seventeen hours solid labor—doing Edinboro town and its environs. The party is a very large one. Its members fill the drawing-room, the reading-room, the smoking-room, the corridors, all who are not writing being engaged in talking, the staple of the talk being "'our' country and its immense superiority in all things to this awfully slow old concern over here. How much longer and wider and deeper and swifter 'our' streams are than the little creeks that these people call rivers; how one of 'our' mountains in the States is as large as a chain of mountains in Scotland; and how four of the Royal Hotel could be put in the Revere House, Bosting, or ten of it in the Palmer House, Chicago, and a whole dozen in the Fifth Avenue, New York, and then leave ample room for five hundred guests. And how much better our tobacco is, and how all these fellows have to get their tobacco from us, and how everlastingly superior our rum and rye are to this "Scotch stuff;" how if these fellow-countrymen had ever tasted Bourbon! and "how tarnationly and in every way and in every thing, up and down, big and little, wholesale and retail, the States is the land of the free and the home of the brave; and how the American eagle could chaw up and spit out the lion and the unicorn before you could say Jack Robinson; and long may it wave, the dear old flag; long may it wave;" and much more of the same vainglory, when it was all ended, for the hour at least, by the servant saying, "Twelve o'clock, gentlemen; time for the smoking-room to close!" whereupon my countrymen seized their grip-sacks and "guessed" they 'd "turn in."

Before going, an elderly man who had looked often in the course of the evening on the tip of the little finger of his right hand said to the waiter, "We want breakfast in the morning at six; we' ve got a powerful sight to see tomorrow!" The waiter replied, "May it please you, sir, we do n't have breakfast here

till nine o'clock, sir!" "What!" exclaimed my friend and countryman, "no breakfast till nine!" "No, sir; maybe you might get it afore, sir, if you 'd a spoke to the head-waiter, sir; but nine is the ordinary breakfast-hour, sir," meekly replied the servant. My countrymen surrounded that servant, they encompassed him about, and each after his kind gave him a piece of his mind. The elderly man finally neared the servant, and waving his hand over the indignant group to command silence he said, "Gentle*men*, I now see why this people does not get along; how, in fact, it is impossible that they should get along; how they must always fail to get along. They are too slow a people, gentle*men;* too slow a people—a people, sir," pointing his finger at the burly, broad-shouldered, well-fed Scotch servant, who would have outweighed any two of the party and could have "gotten away with" the whole of it in a rough-and-tumble, catch-as-catch-can fight. "A people, sir, who do not breakfast till nine o'clock in the morning, sir, can not get along, sir; they are necessarily a hindhand people, sir. It is too late an hour, sir. Half a day's work ought to be done, sir, by that hour in the morning, sir. People can not be educated who do not breakfast until nine o'clock, sir. And without education, sir, no people can get along, sir. Education is the groundwork of free institutions—the corner-stone of liberty, sir; and to get an education you must get up early, sir, get up early, sir. No getting along without it, sir. No, sir. Unless you change your breakfast-hour, you Scotch will be left in the great race of peoples, sir. Left, sir! Mark me; left, sir!" Speaker again waved his hand. The listeners "guessed" again, and the waiter assisted my elderly countryman to "get along" to his room. As I watched the pair slowly move away I thought that in the matter of "getting along" up stairs—at least after midnight—the Scotchman who breakfasted at nine "got along, sir," considerably better than did the elderly American who breakfasted when at home "always at six, sir! always at six!"

Tomorrow I shall see Mr. John Chiene, whose lectures on Surgery in the AMERICAN PRACTITIONER three years ago at-

tracted such attention, and shall witness such operations as he may have to do at the Royal Infirmary. I shall also make it a point to see a number of Mr. Keith's ovariotomies, and strive to catch, if I can, the secret of his marvelous success.

* * * * * * * * * *
* * * * * * * * * *

June 30th.

My elderly countryman was in no better humor this morning than last night. He did not get his breakfast until nine o'clock, nor could he have done so at any restaurant in Edinburgh. Nor, as for the matter of that, would he have found any restaurant in London open before that hour. Few of them open before ten in the morning, and I think all close before twelve at night. The doors of this very comfortable and well-ordered house are shut and locked at eleven P.M., and the guest who arrives after that time must ring the bell as at a private house in order to get in. And this Royal Hotel is the largest as it is the best hotel in this ancient town. My elderly friend declared this morning he should never put up here again, nor indeed at any other hotel if he knew it where he could n't get his breakfast until nine o'clock. The old gentleman was unwilling to believe that climate and condition together determined in large degree the hour at which people took their meals no less than what they eat. He breakfasts when at home at six, dines at twelve, and sups at six. His mènu at his morning repast is a fry, soda-biscuit, pie, coffee. At twelve he simply adds to this one or two vegetables and some stewed fruit. For supper he substitutes for the vegetables tomato preserves; the mènu remaining otherwise unchanged. Before retiring he sings "We are marching on," and eats an apple. Under this dietary and in his climate the Michigander grows up thin and sallow, a martyr to dyspepsia; is stoop-shouldered; he walks but little and walks badly on small legs at thirty; is old at fifty, and generally under the sod at threescore years. The Scot breaks his fast on porridge, topping it with milk, eggs, a slice of cold meat and tea. He lunches at one on bitter beer,

cold meat, bread and cheese. At seven he faces soup, fish, roast meat, potatoes, cheese, and bitter beer. Before retiring he has one or more whiskies. The Scot moves in a large, well-knit frame, on legs made for use, at a brisk swinging gait which he can keep day in and day out. He does n't know what dyspepsia means, is blooming at fifty, and keeps the undertaker waiting until he reaches the eighties; and, if he drank Bourbon instead of Scotch whisky, I 'd wager he 'd round the hundred. Climate more than food makes the difference between the two men. If the Michigander would move to this country he 'd grow in a few generations to good size and into good shape. The Scotchman, after living a few generations in Michigan, would return to his native heath in the person of my elderly friend. Speaking of legs, Englishmen have the largest and best developed legs of any race on the earth. The women have very broad hips, which necessarily makes them slightly knock-kneed and therefore graceful steppers. As for legs, they are magnificent—seen through their pin-backs, I mean.

Rain! rain! rain! but it does come down this morning. Notwithstanding, however, the General and a portion of the command are going to make a sortie. The General has not declared it, but I verily believe her intention is to occupy Arthur's seat—if it is n't too wet. In the event of the water retarding the movement, I have prepared pontoon bridges, which will afford them the means of rapid advance. I have remained in the rear to write and forward you this report. After reducing this city we will head toward the sea, our objective point being Oban, a good place for supplies, and admitting of easy marches through the Highlands and along the lochs. A line from Oban, which I hope to send you on the 4th July, will be the last I shall send you until after the meeting of the International Medical Congress.

OBAN, July 4th.

The ride from Edinburgh to this place occupies six hours. We selected the daytime for making it, and the day, though

somewhat moist, admitted of our seeing the mountains, rivers, and lochs to advantage. The country is indeed wild, the scenery varied, not unlike that furnished by some of the spurs of the Rocky Mountains. The entire absence of trees upon the hill-sides strikes the American as being odd. The lochs which we passed were beautiful sheets of water reflecting from their placid surface the rugged but treeless hills which looked down upon them. The little short-legged, thick-wooled, hardy, black-faced sheep could be seen in great numbers far up the mountain-sides even to the very summits, looking in the distance more like white mice than sheep. A few small herds of Highland cattle, black, yellow, fawn-colored, and ash-colored, thin, bony, with large heads, bushy fronts, and very long hair, grazed here and there. As the train neared Oban a covey of young grouse flew across the road, and lighting in a patch of heather quietly looked at us as we passed. Further on a shepherd herding a few young cattle lay on the hillside, his hands clasped under his neck, one knee bent, the other crossed over it, in his mouth a stub-pipe, at his side a little boy at the most three years old, and at this boy's side sate a collie. The outstretched arms of the boy rested one on the head of the shepherd; the other encircled the neck of the shepherd's dog. Father, son, and dog. Many yards below them the long-haired, bushy-headed Highland bull bellowed savagely as the train slowly climbed the ascending road. Soon after we reached Oban, and from the Highlands looked down upon the sea. * * * * * * * *

* * * * * * * * * *

Just as I had finished and sealed the foregoing I heard a bell ringing in front of my window. On looking out I saw a grizzly old Scotchman ringing a bell about the size of that used by the auction-men in Louisville. When he had swung it in the air several times he stopped, and with an "O yez" read in a loud and distinct tone an advertisement of "a house and lot and furniture to be sold next Wednesday by James Clark, auctioneer." He now rang his bell again, and, stopping, announced, "Lost, yesterday on —— street a bunch of keys fastened in a ring; the

finder will be rewarded by returning them to Mr. McArthur, the cobbler." Again the bell, and, ceasing to sound it, he cried, "Found, a small sum of money, which the owner can have by describing and paying expenses." The man was the "town-crier," a relic of a long-gone time, and now but rarely seen even in the more secluded villages of this interesting country.

* * * * * * * * * *

OBAN, July 7th.

Three days ago the General with a portion of the command moved on John O'Groat's, intending to reduce Iona, Staffa, and Isle of Skye, and return. The sick, S. and myself, were left here; and as the march was largely by water, and that salt-water, I am very glad I have remained in the rear. S. is too, for she is n't a much better sailor than I am.

This little town, resting under the shelter of Kerrera, takes its name from its white-walled houses—so the Guide-book says—the only instance in my knowledge where a village is named after it is built. The "white bay" is a pretty sheet of water, and indents the land in somewhat the shape of a horse-shoe—the houses clustered around its edges. Behind rise mountain-cliffs, green in ivy and forest-trees. The air is fresh and delightful. Most sea-air is delightful to me on land. Our pleasure here has been slightly dampened by the rain, which has fallen in a quiet way at least half of every day. The genuine British tourists go and come regardless of the weather. Rain does not hinder them, nor do winds. They tour just the same. They foot it or seek the outside of coaches or sail in boats in rain quite as in sunshine, of which latter they get precious little about this bay. They prepare for the weather with water-proofs of every possible kind, with woolen and other heavy fabrics; and they—women inclusive—really do n't mind getting wet. Yesterday morning a very pleasant lady whose acquaintance we had made at the hotel mounted in a brisk rain to the top of the coach on which she was to ride for six hours, and did n't even raise her umbrella. She said she rather liked the rain—liked to be in it. Her husband by her side expressed himself ditto.

The rains I have seen here do not fall in torrents as ours do, but descend in a quiet, orderly manner, more as they come in Kentucky on a dreary November day. Hence a good waterproof over heavy clothing is sufficient to prevent one getting much wet. The highlander gives rain absolutely no thought. A few weeks ago at a religious open-air meeting near here hundreds of these hardy people sate through a morning and afternoon service, the rain falling steadily the entire time. Women with children in their arms, who had walked there from points ten and fifteen miles distant, and men who had walked twenty or thirty miles, formed a portion of the concourse, which without other protection than their tartans, and many without even these, were delighted with the performances.

The British is a nation of pedestrians. Outdoor exercise and outdoor sports are indulged in to an extent that astonishes an American. "Come for a walk!" is what your friend says when he calls in the morning, and means a little spin of six or eight miles. "Come, my dear Yandell, and we 'll go down to the hills of ——, a beautiful walk of eighteen miles; we 'll leave after lunch and get there to dinner; we can return, if you wish, tomorrow morning to breakfast" ran an invitation from a great London surgeon. The highlander thinks nothing of a walk of thirty miles. His children often walk ten miles to Sunday-school, and he frequently makes a morning-call on foot twenty miles away. When you see his tall, well-set figure and his lusty limbs, and watch his long, swinging stride, you will understand how in a go-as-you-please he is able to cover these great distances without fatigue. I should have added, "and when you breathe the highland air," for this must have much to do with it. But the air of all this island incites you to move about, to put yourself in motion, to get out of doors, to stretch your limbs, to expand your chest. You absolutely long to do all these, and the air and the temperature appear to contain an element which keeps off fatigue, which prevents weariness. And here in the highlands this seems to be specially true.

Among my little walks round about here, one of the prettiest

is that to Dunolley Castle, once the home of the ancient lords of Lorn, occupying a rugged promontory a mile north of the town. A quarter of a mile below it stands an immense solitary pillar of rock, named Clach-na-coin, which my friend John Barbour will know better under the title of Dog's Pillar, it being so called because Fingal used it as a hitching-post for his famous dog "Bran." Even yet

> "Something of old ancestral pride it keeps,
> Tho' fallen from its earlier place and circumstance."

The only drawback to my full enjoyment of all these beautiful surroundings is that S. is quite unable to accompany me on foot, and my own legs are not very useful. I tire quickly. The difference between being able to avail ourselves of the walks and the drives which are spread out on every hand and being obliged to consult our limited capacity for going is very great. It is one thing

> "In vigorous health
> To roam at large among unpeopled glens
> And mountainous retirements,"

and another thing altogether to attempt it as an invalid. The other members of our party, however, are going to do it all from John O'Groat's to Maiden Kirk.

In my strolls immediately about here I have seen three varieties of cattle—two in abundance; of one but a few specimens—the west highland, a small shaggy-coated, big-headed, long-horned, short, clean-limbed chap, with nearly as much hair on his tail as a mule colt. He is quick in his movements and very fleet of foot—a thorough "scrub," reminding me of our smallest "brush" cattle. But he is a wonderfully hardy animal, and after his first year, during which he requires shelter, he shifts for himself and slowly gathers size and flesh on the tough grasses of the hill-sides. Their milk is said to be rich but secreted in very small quantity. The Ayreshire, which also abounds, is the milk-breed of Scotland, and being of fair size they make good, fat cattle. You have no doubt seen specimens of the breed. In size they are on a par with our

scrubs, with shorter legs and more compact bodies. They are red and white, brown and white, and yellow and white—some brown. They too are a hardy race, and even on the scant food they obtain they are large milchers, and while the milk in quality may be somewhat less rich than that of the Jersey cattle it is abundantly rich. The cows are larger than the Jerseys—have better constitutions and weigh much more as beef. On the long grass of the lowlands their yield of milk is greatly increased while its quality is excellent. I much prefer the Ayreshire to the little Jerseys. The Scotch poll is a little black "muly" or hornless animal, not much seen in this part of Scotland. He too is a hardy brute, very compact, fattens with astonishing rapidity when taken to the rich pastures of the South, matures early, and is greatly sought after by the "fleshers"—Scotch for butchers. The "blue-blooded" Scotch poll is always a black "muly."

The black-faced or Highland, the Cheviot, and the border Leicester sheep are the three varieties of the sheep I find here. The latter I have seen but a few specimens of. It is a wonderfully hearty animal with great tendency to fatten. They arrive early at maturity, producing, I am told, a large quantity of mutton in a short time and on a comparatively small quantity of food. I have tasted some of the meat, but it was coarse and tallowy. I understand the chief value of the Leicester consists in his producing a very superior cross on the ewes of the other breeds. The Cheviots get their names from the range of hills lying between England and Scotland and are a greatly-prized variety of the fleecy tribe.

The Cheviot is midway in size between the Leicester and black-face, and possesses many of the best qualities of both. He does n't stand cold and rain as well as the latter, and requires better feeding while he yields a better clip. On the other hand he consumes less than the Leicester, is hardier, and their mutton is better. He is much handsomer than either. His head is really fine—full Roman nose, pricked ears, long neck, which, with his well-turned body, give him much grace and dignity of

movement. He is a particularly valuable mountain sheep. But the one of the trio which has most interested and pleased me is the black-face. He is a most uncommon little chap. He looks like a short-legged wooly dog without a tail. His fleece reaches nearly to the ground, quite hiding his legs. His horns are very large, neck short, head small, face black, legs same, body round and short—his whole appearance being thick-set, stubby. Seen as he picks his way far up the sides of the hills he resembles a long-haired white poodle—he seems to be creeping, his body actually on the ground. He is the sheep for these high cold and wet regions, the healthy mountain-ranges! He is said to be capable of enduring hunger and cold far beyond any other variety, while no amount of rain can penetrate his thick fleece. Nothing comes amiss to him in the way of forage. He will dig for the coarse grasses on which he subsists in the winter down beneath the snow. The ewe lambs are kept for breeding purposes. The wedders alone find their way to the fat market, having first been fed a time on the turnips of the lowlands. Of all mutton I place that of the black-face first. I wish some one of our enterprising people in the mountains would introduce the variety into Kentucky where a milder and dryer climate and better pasturage would improve the quality of both the wool and the flesh, if this could be done. The black-face will live and thrive where other sheep could not subsist.

Ting-a-ling, ting-a-ling, ting-a-ling, ling, ling! and the town-crier is again before my window, and now he cries—

"O yez, a congregational meeting in the church today at eleven o'clock."

Ting-a-ling, ling, ling—"O yez, for sale at the Victoria quay, six carns of herring, fresh catch, to go cheap."

Ting-a-ling, ting-a-ling—"O yez, Arthur MacPherson, the flesher, has six black-faced lambs, killed this morning—very fine."

Perhaps by this time you 've cried, hold, enough! and so I hold.

* * * * * * * * * *

July 10th.

You observe I have changed my base. This was done in obedience to orders, the commanding General having found the advance on John O'Groat's rather more than her divided forces would allow. So she made a slight retrograde movement, and directed me to form a junction here. This I succeeded in doing yesterday, and today we occupy Inverness. The ride—all by water—from Oban, via Caledonian Canal, is among the most charming in all Scotland; and that, my friend, is no small thing to say of a land which abounds in every beauty which can be formed by countless combinations of hill, sea, and valley; of mountain, lake, and river; sunshine and storm; mist and trooping clouds; rills bright as threads of silver; cascades leaping into foam, which, falling too far away for motion in the descending mass to be detected, suggest columns of solid snow. When you come this way be sure you take it. The memory of its weird grandeur and anon its smiling splendors will abide with one always; yet I should like to renew it every season.

I believe I said once before that the island is absolutely overrun just now by my beloved countrymen. They are doing the Highlands at this time, and those everlasting hills are being pushed through and over and under and around at a gait that must amaze them. Tramp, tramp, tramp; here, there, every where; so much to see and to do, and so little time to do it in. Why, bless your soul! by going to bed early, to get up early, to get breakfast early, to get early dinner, that he may have early tea and go again to bed early and get another early start, the average Yankee will travel over more ground and see (after his fashion) more territory in one week than a Scotch tourist will do in a month. And then between swallowing a large guidebook at each meal and consuming two or more smaller books between times, that same Yankee will come out of his journey full as a tick of the whole thing. He can tell the Scotchman—or fancies he can—of lots of matters connected with the tour never dreamt of in the latter's philosophy—or any body else's. Whoop-e-la! whoop-e-la! but my compatriot goes it! His time

is short and his purse is long. He holds his watch on the one and takes the string off the other, and goes it. "Due at home September 16th; engagement in my office at 12:15 that day; bound to be there; got to do England, Ireland, and the Continent between now and then; bound to, you know; must see it all; Hez. Williams guessed he'd seen it all last year in sixty days; *I'll* do it in forty-five exclusive of ocean trip; for, after all, this is a mighty small country, and the Continent aint much larger, I guess," said my countryman to a courteous Scotchman as we steamed by the hoary head of Ben Nevis. Soon after he "guessed it cost a right smart chance of money to build the Caledonian Canal," which was pleasantly answered by his listener in the affirmative.

"You people," said a titled Englishman to me the other day, "are ruining travel in this country as well as on the Continent. By your lavish use of money you raise the price of every thing. You pit money against time, and back it at any odds. You leave home with so many days to stay, so many countries to see, and any amount of money to spend, and away you go! and so does your money! You come in a run, travel by express, write by telegraph, and have done and gone home before one can say Jack Robinson. I never saw such a people. You and a few others are all I have seen who appear not to belong to this class. Somehow you do not talk or do as they do. Your intonations are n't the same. Your manners are n't the same. Your bearing toward women is n't the same. You treat them with a kind of deference which the other man does n't show. The voices of the women with you differ from the voices of those from other parts of your country. Now can you tell me why this is? Are there three or more distinct peoples with you as with us—the English, the Scotch, and the Irish? Do you call one the Yankee, one the Western man, the other the Southerner? This has always puzzled me, and every year it puzzles me more and more. I am sure there is a difference. I believe it is as radical as that which you observe among our three races. The Yankee, as we once called all you folks, but who we now pretty well know

comes from New England alone, no more resembles the man from the South than the latter resembles the man who hails from the Northwest. I wish you'd explain it to me." I think I might have done so; perhaps I did do so. For there *is* a difference between the people coming from the different sections, and it does not follow because we are a united people that we are necessarily the same people all over the land. True we were, in one sense, cut out of the same block, and resemble in all the cardinal points; but we are no more one and the same people than are the English, Scotch, and Irish. My friend from Vermont has his good points, and I take my hat off to them. He eats pork with molasses. I eat hog and hominy. He would—if he had them. I recognize his good qualities; yet that does not blind me to the fact that his views and mine on many subjects are totally dissimilar; that he "calculates" and I do n't; that he drinks cider and I drink Bourbon. Notwithstanding all which, here 's good health to him and his.

There are, as you would naturally suppose, Americans and Americans abroad; some of the best, and many who are not. The former gain us and our country troops of friends; the latter keep alive the idea of all our worst national characteristics. The former receive on every hand kindness, attention, hospitality; the latter do not. The former return home charmed; the latter do n't. The former see countless things to admire and many people to like; the latter see nothing to admire and nobody to like. One brings his quiet manners, his cultivation along with him; the other, having neither, brings none. The one does us credit as a race of well-bred men; the other does quite the reverse. There are American youths—I regret to say it—who are "sniffs," older Americans who are puppies, and still older Americans who are fools; and each of these varieties sends its most select representatives abroad in increasing numbers every year. And it takes a considerable number of the other and better kinds to convert by any sort of catalysis an otherwise than good lot into what shall really be representative of our better and higher civilization. * * * * * * *

I am compelled to say that the Scotch are not a pretty people—in the face. There is no place where one is so sure to see a collection of the beauties of a town as at the photographer's. If they are not there, I am of opinion they are nowhere. And while photos, as Douglas Jerrold said of daguerreotypes, are justice without mercy, still handsome people do sit for such pictures, and the artist does sometimes catch and preserve the most beautiful lineaments of their faces. Well, I have made pretty diligent search for such pictures in every town and city I have visited in this charming country, and I have not been repaid for my trouble. Scotch beauties are not there, nor do I see them in the streets nor meet them in either mountain or glen or on loch or river. There are more handsome faces in either Elrod's or Wybrant's or Klauber's galleries native and to the manner born than you will see in all the photograph-galleries in Scotland. This is the truth. Nor are Scotchmen either so large or so well-shaped as Englishmen. But warm-hearted, sociable, kindly, hospitable the Scotch people are in the highest degree. Humorous and appreciative of humor, witty and appreciative of wit, capital story-tellers; fine speakers, slow but tremendously firm; delighting in argument; stiff in opinions; tender-hearted; fond of a laugh, a pipe, and good whisky; simple in their ways, their habits, and their lives, with immense reverence for spiritual things; wonderfully prolific, they have more than doubled their population in the last fifty years. Far-seeing, enterprising merchants, their vessels enter every port; patient, frugal, industrious farmers, they export, notwithstanding their own dense population, large quantities of food; their artisans ingenious, they manufacture substantial and needed things, and the products of their factories are offered in all the great marts of the world; their universities among the most ancient and the best, their scholars rank among the most erudite, their jurists among the most able, their divines far and away the most eloquent, their physicians confessedly among the most skilled. But, for all that, the average Scotch woman is n't handsome and the average Scotch man is n't comely. Given blue eyes and high cheek-bones, and the

effect is—not pretty. So here's to the land where, though the year is divided into nine months winter and three months bad weather, has notwithstanding developed a truly noble people; where if the women are not beauties and the men are hard-featured they are all "tender and true," which is better.

Great Britain is surely the paradise of dogs, and London is its central city. Dogs have a value here such as they bear nowhere else. They are property—taxed and protected as such. I never knew exactly what kind of dogs Tray, Blanche, and Sweetheart were; but they or their shadows must be in London. I have not visited Constantinople, where it is said dogs do most abound; but there can't be any more dogs there than in London unless the people move out. Toy dogs weighing but a few ounces; pet dogs weighing as much as a Highland bullock; dogs riding in carriages; dogs on foot; dogs "at heel;" dogs gambolling in front of you; dogs at the ends of chains; dogs at the ends of ribbons; dogs in the drawing-room, in the dining-room, in the bed-chamber, in the servant's room; dogs in the railway-coaches; dogs on the coaches-and-four; dogs every where, and every where dogs; servants taking dogs out for an airing; mistresses taking them out for a walk; lovely dogs; sweet dogs; darling dogs; delicious dogs; heavenly dogs — they are called. They are more seen about the house than are the children, and are more petted than are the women. I have seen mothers with dogs in their arms while their children were consigned to the care of the nurse; I have seen mothers packing or leading dogs while little boys and girls were packed or led by servants; dogs instructed by their masters while the masters' children were instructed by the governess; hospitals for sick dogs, when there are not hospitals enough for sick men and sick women and sick children; "homes" for dogs, when there are thousands of people who have no homes; food for dogs when there is n't food for children; meat for dogs, when there are people who have never tasted meat; cakes for dogs, when there are children who do n't know what the taste of a cake is; covers for dogs, where there are people destitute of clothing. How is that for dogs?

What would Mr. B——g of the Courier-Journal do if he were in London? It is a "purty sight" sure enough to see a great grown man stoop down and, picking up a little dog, pack him across the street; or a fat dowager leading a small dog, and seeing Fido stop to have a chat with some canine friend, or stop—for some other purpose, the dowager waiting quietly by all the while. I must say, however, it is "too too," "too too consummately utter" for me, fond as I am of dogs in the field, the yard, or on the farm.

The General orders an advance on Perth. I go to make ready. Faithfully, D. W. Y.

Reviews.

American Nervousness: Its Causes and Consequences. A Supplement to Nervous Exhaustion (Neurasthenia). By Geo. M. Beard, A.M., M.D., Fellow of the New York Academy of Medicine, Member of the New York Neurological Society, Ex-Vice-President of the American Academy of Medicine, Member of the New York Academy of Sciences, of the American Neurological Association. New York: G. P. Putnam's Sons. 1881. Pp. 352.

Neurologists are now having their inning. Their literary fecundity is something approaching the marvelous, and the consumers of their brain-work embrace nearly all medical men with thrice as many others, probably. The world is all agog for the discussion of the nerves, their structure, their essential normal functions, and their disorders; and the treatment of nervous diseases crowds the general practitioner, the neurological specialist, and the sharp charlatan. During the current calendar year, now seven months old, announcements have been made in the Index Medicus of the fresh publication of one hundred and thirty-six books, reports, and pamphlets on the nerves; and of these the French press has presented sixty-nine, the American twenty-nine, the German seventeen, and the English fourteen; and in addition to these we have at the same time eleven hundred and twenty-nine medical journal articles in all countries. All this corresponds with the consumption of immense nerve-power, and possibly should be enumerated among the efficient causes of existing neurasthenia.

There is propriety in this widespread interest in neurological affairs; for, of a verity, whatever we know of ourselves and of others, and of things not ourselves or others, is made manifest to our consciousness through our nervous organization and through it exclusively. Therefore the more perfectly our knowledge commands the entirety of nerves, structure, and function,

the better we shall be able as men to enjoy life, and as doctors to correct their disorders of whatever nature.

Dr. Beard is among the active neurologists who write freely of their work for the edification of the world. The present volume is in the nature of an addendum to or complement of his work on neurasthenia published about a year ago, and is designed as a philosophical and popular consideration of the whole "domain of nerve sensitiveness and nerve susceptibility, that lead to the more definite condition of nervous exhaustion." It can scarcely be classed as a book of scientific exactness, even such as the subject would admit of; but if one may distinguish between philosophic dissertations and scientific essays, this book is composed of the former, being five chapters on, respectively, 1. Nature and Definition of Nervousness; 2. Signs of American Nervousness; 3. Causes of American Nervousness; 4. Longevity of Brain-workers, and the Relation of Age to Work; 5. Physical Future of the American People.

In defining nervousness the author first declares what it is not, and is earnest that we shall understand that "nervousness does not mean unbalanced mental organization; a predominance of the emotional, with a relative inferiority of intellectual nature." He therefore discards the common idea that persons who are unreasonably timid when there is nothing to fear, and apprehensive of mischief out of all proportion with the probabilities of danger from the surroundings, are nervous; and after many illustrations intended to give an affirmative understanding of what he means, he makes this italicized positive definition: "*Nervousness is nervelessness — a lack of nerve-force.*"

This is followed by a lengthy explanation assuming the character of an apology, giving reasons why the word "nervousness" is retained instead of supplanting it with the true word "nervelessness." And the chief of these reasons is that the popular and professional recognition of the signification of nervousness would be disturbed by the change, illustrating this position by citing such terms as "writer's cramp," "hysteria," "epilepsy," and the like as quite unscientific, inexpressive, and metymolog-

ical, and yet must be retained because of their long use and a due reverence for familiar terms. This reasoning would not be satisfactory even if founded on real facts, and as it rests only on unsubstantiated allegations it is altogether worthless. Hysteria and epilepsy are terms that carry with them well-established significations, and they have not had other definitions than now attach to them; but surely neither the populace nor the profession have held, at least with any approach to unanimity, that nervousness meant nervelessness, and etymologically nervelessness would signify without nerves, not without nerve-force. But if the grammar were all right, and yet in the use of nervousness there arises a confusion of ideas, it should be dropped and another term substituted that should have a definite and distinctive meaning. Dr. Beard is not so barren of originality but that he could present a term that would fill exactly all the requirements of the case, if he were so minded. Original ideas should be presented in language void of all ambiguity, otherwise the author fails of his aim and his labor is lost.

A careful perusal of this chapter does not lead one to the conclusion that the author really means by American nervousness the absence of nerve-force, as he asserts, but rather an unbalanced or erratic exhibition of nervous energy. He declares that neurasthenia or nervous exhaustion is the sequel of nervousness. Now how can there be an exhaustion of nerve-force when there was no nerve-force to exhaust? And the signs of American nervousness which the author sets forth with particularity and at great length in his second chapter still further justifies the conclusion that he does not portray the absence, but the erratic manifestation of nerve-force. The reader is irresistibly led to the conviction that Dr. Beard has not evolved in his own mind clear and definite conceptions of American nervousness, or he would have found better language for their presentation.

There is a further degree of confusion, or perhaps it would be better to say a lack of perspicacity, in the presentation of his views on nervousness by Dr. Beard, as there is also by other

authors, because he does not any where in his book set forth in terms the rôle of nerve-force in animal life, but leaves the reader to infer, perhaps unintentionally, that it is in some way different in origin and nature from other vital manifestations; that it is, in fact, the foundation and essential substratum of all human vitality. We will not be in the best condition to understand either the physiology or the pathology of the nervous system until we recognize that nerves are not indispensable to vital activity; that the cell, which is the vital unit for animal as well as vegetable life, has no nerve-tissue nor differentiated nervous function; and that the fecundated ovum of the human female is but a homogeneous cell, bloodless, boneless, nerveless, and yet endowed with the potentiality of a man perfect in structure and function in all his tissues, organs, and apparatuses. Such a study will teach us that the rôle of the nerves as a system is not independently to originate vital force, nor even to excite it, but to associate, harmonize, and unify the inherent vital energy of a countless host of cells aggregated into a body and differentiated to the highest purposes of a sentient being, so that the notes of a harp of a thousand strings may be delivered in a strain of accordant music. And, furthermore, while writers on neurology continue to employ words indifferently to signify either vesicular neurine, a conducting nerve-fiber, and their separate or combined functions, there must remain obscurity and indefiniteness in their teachings. Instructors in every teaching department should have well-defined ideas and definite terms in which to express them.

In his second chapter Dr. Beard recites the signs of American nervousness, and of them makes a catalogue numbering nearly fifty. The chapter is instructive, both for its general drift and its special points. The reader will probably marvel at the enumeration of near-sightedness, bad teeth, premature baldness, diabetes, chronic catarrh, American female beauty, lacerations of the womb and perineum in parturition, American oratory, and an alleged growing mildness of syphilis as among the notable signs of American nervousness; that is, mark, a lack of nerve-force. It seems an incongruous assumption that American eloquence

and a ruptured perineum should have the same genesis, or, rather, be signs of the same constitutional imperfection. It is an affair of some consolation, however, to those who are convinced by the author's statements, that he assures us that his long list of nervous ills is conducive to longevity, and not, as we might conceive, destructive of life.

Regarding beverages the author makes some curious announcements. He asserts that American nervousness renders its victims incapable of drinking coffee and tea, as well as alcoholic stimulants, thus: "Through all the Northern States the brain-working classes find coffee more poisonous than whisky or tobacco, and thousands are made wakeful even by a mild cup of tea. The incapacity for bearing the gentlest wines and beers is for thousands of our youth the only salvation against the demon inebriety. Thus the united forces of climate and civilization are pressing us back from one stimulant to another, until, like babes, we find no safe retreat save in chocolate and milk and water." If the army of temperance advocates can ingest and assimilate this information it will prove a source of much comfort.

In this connection the author further says, "To see how an Englishman can drink is alone worth the ocean voyage. On the steamer with me a prominent clergyman of the Established Church sat down beside me, poured out half a tumblerful of whisky, added some water, and drank it almost at one swallow. He was an old gentleman, sturdy, vigorous, energetic, whose health was an object of comment and envy. . . .

"A number of years since I was present at Liverpool at an ecclesiastical gathering composed of leading members of the Established Church, from bishops and archbishops through all the gradations. At luncheon alcoholic liquors were served in a quantity that no assembly of any profession, except politicians, in this country could have tolerated.

"Capacity to bear stimulants is a measure of nerve-force. The English are men of more bottle power than the Americans."

This may be accounted of the nature of news rather than of scientific demonstration, and the author subsequently adds a clincher by saying, "To see how other nations drink, and to learn how our fathers half a century ago used to drink, is to a philosophic nature worth a trip to Europe, though nothing else be seen." An ocean voyage seems to be a favorite means of measuring the value of opportunity to see how the world drinks, but the average landsman who undertakes it usually gives more attention, under duress, to the phenomena of emesis than to the philosophy of the ingestion of beverages; though quite possibly, as the author has a book on sea-sickness, he rates the voyage, as a means of philosophic investigation, minus this distressing accompaniment.

Further along in the volume, and out of connection with this bottle-power argument, Dr. Beard says, "The excessive nervousness of Americans seems to act as an antidote and preventive of gout and rheumatism, as well as of other inflammatory diseases." If this be true, perhaps the reader may associate the American nervous inability to drink with the nervous absence of gout and rheumatism; and this suggestion finds additional support in the fact, if such it be, as the author alleges, that nervousness makes Americans small eaters as well as poor drinkers.

Whether nervousness be the cause of the difference or not, certainly no observant American who has entered the social life of England, on whatever plane, has failed to be impressed with the greater consumption of food and beverages among the home descendants of our forefathers; but it has been reported by visitors who have had experience that a few months' sojourn with our English fraters in their homes enables Americans successfully to compete with them in eating and drinking; so that we shall have to conclude that English climate, customs, and cuisine are a cure for American nervousness, so far as manifested by gastronomic peculiarities.

A long chapter is devoted to the causes of American nervousness. The chief fundamental causes are stated to be: 1. Modern civilization; 2. Climate; 3. Race; 4. The nervous diathesis.

The last-recited cause the author uses as an omnibus into which he crowds a heterogeneous company of sub-causes, including a comparison of Americans with the Chinese, the Turks, the Indians, the Negroes of the South, and the Americans who live east of the Alleghanies with those who live west, drawing the surprising but probably correct conclusion that nervousness is decreasing east and increasing west.

Declaring that "American nervousness is the product of American civilization," the author adds that "the people of this country have been pressed constantly with these three questions: How shall we keep from starving? who is to be the next president? where shall we go when we die?" It must be confessed that these are, and rightfully, paramount queries; but surely few competent neurologists will attempt to maintain that the interest felt in them by American citizens should be accounted an evidence of their "lack of nerve-force." It is even reasonable to infer that the attention given to these interrogatories among us is due to the appropriate exercise of a large amount of an excellent variety of nerve-force; and furthermore, many politico-biologists will doubtlessly hold that instead of American nervousness being the product of American civilization, American civilization is the product of American nerve-force, and that the character of the product justifies the inference that the nerve-force is both abundant in quantity and of good quality.

Touching the influence of climate, Dr. Beard intimates rather than declares that the alternating extremes of heat and cold militate against the better development of man, and especially the proper development of his nerve-force, and instances the Sandwich Islands climate as the ideal one for the highest human evolution, because the temperature there perpetually lingers between 65° and 85° Fahrenheit. This is an illustration that illustrates the wrong way—a witness that testifies against the caller. Capt. Cook found about four hundred thousand well-to-do inhabitants on the Sandwich Islands. While reading this chapter the newspapers announce that King Kalakaua, of the Hawaiian monarchy, is in England attempting some negotiations on be-

half of his subjects now reduced to two thirds of a hundred thousand, and these without more than a semblance of agriculture, manufactures, or commerce. This makes a poor exhibit of the success of an equable climate in furnishing a nation of good men either in numbers or works. The islands have an area of sixty-five thousand square miles. Center Township, Marion County, Indiana, has an area of forty-two square miles, and as a matter of fact the latter has more than twice the population of the former and a thousand times more enterprise. The islands have been peopled with the present race since immemorial time. The existing race of nerveless Hoosiers have occupied Center Township since 1819.

In whatever way neurologists may account for it, history establishes the fact that the advance of civilization for the last thousand years has been chiefly among the inhabitants of the middle latitudes where the climate has been subject to variations of temperature even exceeding one hundred and twenty Fahrenheit degrees.

Notwithstanding the frequent looseness of statement and wrong deductions in this chapter on the causes of American nervousness, there is much in it worthy the attention of and more that is valuably suggestive to the general practitioner of medicine.

Nearly twenty years ago Dr. Beard first published the result of his studies in the longevity of brain-workers as compared with muscle-workers, and the conclusions he then announced he now declares have been abundantly corroborated by his own further investigations and the testimony of numerous other searchers. He submits these propositions: "1. That brain-working classes—clergymen, lawyers, physicians, merchants, scientists, and men of letters — lived much longer than the muscle-working classes. 2. That those who followed occupations that called both muscle and brain into exercise were longer lived than those who lived in occupations that were purely manual. 3. That the greatest and hardest brain-workers of history have lived longer, on the average, than brain-workers of ordinary ability and industry.

4. That clergymen were longer-lived than any other great class of brain-workers. 5. That longevity increased very greatly with the advance of civilization, and that this increase was too marked to be explained merely by improved sanitary knowledge. 6. That although nervous disease increased with the increase of culture, and although the unequal and excessive excitements and anxieties attendant on mental occupations of a high civilization were so far both prejudicial to health and longevity, yet these incidental evils were more than counterbalanced by the fact that fatal inflammatory diseases have diminished in frequency and violence in proportion as nervous diseases have increased, and also that brain-work is, *per se*, healthful and conducive to longevity."

The author claims to have delved in ancient history until he has mined out the age of all famous men whose lives have been recorded with sufficient detail for the end in view. He states that the number of historical great men is much smaller than the popular estimate. His list comprises five hundred names, and the average age at death was sixty-four and one fifth years; but the average age of one hundred of the very greatest men of the world was seventy-five years.

The views of Dr. Beard declaring the greater longevity of brain-workers have not passed unchallenged through these twenty years; but he insists that not only has he reëxamined the ground of his statistics, but has had other competent persons review the same, and has the added testimony of independent investigators, all converging to sustain his first-formed opinion antagonistic to the popular conception as it may be.

Certainly in a purely clerical matter like this there is no reason to doubt the correctness of the figures adduced by the author, though exceptions to his rule are neither rare nor unimportant, and these he not only recognizes, but recites, claiming rightfully enough that they in no wise invalidate the rule. If error attaches to his conclusions, it is doubtless due, first, to the proverbial unreliability of historical records, and, second, to the fact that brain-workers who died young had not attracted the

attention of the historian, and therefore were unnoticed; while those who became old, by that very fact became historical. Nor should we fail to remember that any number of farm-hands or common laborers, though their age at death were fourscore years, would not be subjects of historical notice. For the relative longevity of brain- and muscle-workers of the current period, we must rely on the official statistics of enlightened nations. The past may be left for the exercise of industrious speculative theorists.

Another idea very prominently set forth in this chapter, and probably not yet recognized by the majority of medical men, is this: that the human mind matures with the body, and that as the body reaches its completest development at about forty years of age, so the intellect at that age has attained the acme of its power. The author asserts that no genius in any line, no famous man of talent at any time has originated any thing after the age of forty. Most of famous people have only been known at a much later period of life than forty; but he contends that the growth of intellect that made them famous had culminated at that age, and that subsequent years had been utilized in arranging and applying the acquirements prior to that time. To originate ideas requires enthusiasm, and enthusiasm fades at forty; but the energy and tact to apply what has been originated continues for many years, and it is this late fruit of earlier growth that is seen of men and establishes fame. Artists, poets, statesmen, soldiers, scientists do their original work before forty, and for a score or more years afterward give it in concrete form to the world. Of course forty years is a relative age of perfection in mind, some men culminating at thirty-five, others enlarging until forty-five.

These conclusions have been demonstrated by analyzing the lives of seven hundred and fifty of the most eminent men of history, and an equal number of men of secondary importance, the average age of the whole at the time of death being sixty-six years, though many of them were over seventy. The author gives the result of this extraordinary investigation in these itali-

cized words: "*The broad fact then to which these statistics lead us is, that the brain follows the same line of growth, maturity, and decay as the rest of the body; that the nervous, muscular, and osseous systems rise, remain, and fall together; and that the received opinion that the mind, of which the brain is the organ, develops and matures later than the power of motion or of physical labor and endurance is not sustained by the facts of history. The capacity for production is greatest in the latter part of the first half of the full life of man.*"

Dr. Beard finds confirmation of his theory in an examination of the lives of animals and plants, and from the whole extensive field of observation deduces a general law of development, maturity, and decline applicable to all living things in their physical structure, and equally so and correspondingly to their mental force for all such as have a mental apparatus.

If this doctrine of the author be true—and he makes it appear quite plausible—the reader whose years are twoscore and ten or more must find his consolation in the fact that there are many notable exceptions to the rule in all countries and periods, and to the further fact that there is as much merit and enjoyment in the application of what has been originated years before as in the fruit of genius or talent made apparent at the time of fruitage.

The last chapter in the volume is entitled "Physical Future of the American People." According to the author, American nervousness is auto-corrective of its own evils, and will presently be purged of all that is objectionable; and he finds abundant reasons why we are to be the salt of the earth and the light of the world—the exemplar of all good things to all peoples; provided always that we do not worry too much. Worry is the retarding evil that stands between Americans and perfection—in the future.

Taken as a whole, American Nervousness is a book that the general practitioner of medicine may read with profit if he will read it studiously, and it may be commended to all intelligent readers of whatever calling. Few, if any, will sanction all its

propositions, but all will find food for healthy nutrition, and many realize a stimulant that will inspire thought and action to bear good fruit in the future. J. F. H.

Cartwright Prize Essay: OBSERVATIONS WITH THE HEMACYTOMETER UPON THE GLOBULAR COMPOSITION OF THE BLOOD AND MILK. By FREDERICK P. HENRY, M.D., Physician to the Hospital of the Protestant Episcopal Church, Phila. Published by F. A. Davis, Att'y, Philadelphia. 1881. Pp. 37.

This short pamphlet treats of the methods for measuring and counting the blood-corpuscles in health, and more especially in disease. Examples are given illustrating the decrease of the red blood-corpuscles in saturnine anemia, anemia of cancer and diabetes mellitus, chlorosis, essential anemia, and pernicious anemia. There is also given a case each of lactation and menstruation, showing their effect upon the number of red blood-corpuscles.

Clinic of the Month.

REMARKABLE CHANGE OF COLOR OF THE HAIR FROM LIGHT BLONDE TO NEARLY JET-BLACK IN A PATIENT WHILE UNDER TREATMENT BY PILOCARPIN—REPORT OF A CASE OF PYELO-NEPHRITIS, WITH UNUSUALLY PROLONGED ANURIA.—Dr. D. W. Prentiss, of Washington, D. C., reports this remarkable case in the Philadelphia Medical Times:

The patient was a delicate schoolmistress. Obstinate constipation was the first serious trouble in October, 1879. Ten days' medication was often necessary to produce an evacuation, and then a profuse diarrhea would occur. Sometimes pure jelly to the amount of a pint or a quart would pass at a single stool. Galvanization eventually removed the bowel troubles. On two occasions no urine passed for thirty-six hours. Acute cystitis followed this, accompanied by high fever, profuse flow of pus, and intense pain. For months urine only came away when a catheter was used. Next the pelvis of the left kidney became involved. Great pain and diminished urine were the result. Examination of this secretion showed color pale, turbid, reaction acid, specific gravity 1.014, no albumen (except in pus). Microscopically examined; copious deposit of muco-pus, bladder epithelium in small amount, no triple phosphates, one pale cast seen after careful search; do not think the pus is from the bladder.

Other symptoms than those arising from the bladder and kidney, already mentioned, were alternating constipation and diarrhea—easily controlled, however—obstinate vomiting, violent headache, and sleeplessness.

Hypodermic injections of morphia relieved the headache, after many other remedies had been tried, but the morphia seemed to increase the vomiting and intensify the insomnia. After the failure of bromides to cause sleep, a trial was made of the fluid extract of Jamaica dogwood (*Piscidia erythrina*), which, when given in a teaspoonful dose at bedtime, usually secured a good night's rest. The piscidia, however, was frequently rejected by the stomach, and it was further observed that it had no effect in relieving pain. When pain accompanied the insomnia the Jamaica dogwood did not cause sleep. It was

further noticed that it did not cause constipation, but, on the contrary, the bowels were usually moved spontaneously the day following its administration. At one time the vomiting was so constant that nothing was retained, neither medicine nor nourishment. During this period nourishment was given by the rectum, and medicines hypodermically.

The above condition continued, with very little change, about five months, when symptoms of pyelitis of the other (the right) kidney developed; great pain and tenderness in the region of the right kidney, with very marked diminution in the quantity of urine, so that for ten weeks it did not average above two ounces daily. This contained a large amount of pus, and at times had a putrid odor. At one time, for seven days not a drop of urine was excreted, although the catheter was introduced twice daily. Extreme uremic symptoms developed—dry skin, but no itching; incessant vomiting, nervous restlessness and twitchings of the limbs, flushed face, severe headache, confusion of vision, and delirium at times. This attack was tided over by the free use of pilocarpin, and the secretion of the kidneys returned.

A record was kept of the amount of urine excreted, and this shows that for *eleven days* not a drop of urine was passed from the bladder, the catheter still being used twice daily, and again during twenty-one days but a little over two ounces of urine were passed.

Other remedies failing, Dr. Prentiss says:

Finally I commenced giving hydrochlorate of pilocarpin hypodermically in doses of one sixth of a grain. The patient was wrapped in a warm blanket, with bottles of hot water around her, previous to the administration of the hypodermic. It is to be observed that the hot bath and the hot-bottle packing had been used previously without causing diaphoresis, and on two or three occasions where the hot packing was omitted the sweating from the pilocarpin was not nearly so profuse. Immediately, almost before the needle was withdrawn, the face and neck would flush up bright red, and dimness of vision be noticed. This was shortly followed by palpitation. In three minutes slight nausea; eyes, nose, and mouth beginning to water, and skin showing moisture. In seven minutes free vomiting, profuse sweating, and salivation. The action of the drug lasted from four to six hours. An analysis of the phenomena produced results as follows:

Vomiting. The vomiting continued throughout the "sweat" almost without intermission, and was the most distressing symptom of the ordeal. After a spell of vomiting the patient would lie back on the

pillow, hoping for a rest, when it would again return. The odor of the ejecta during February was very offensive, like decayed vegetable matter. The amount discharged in this way, which of course includes the saliva, was never less than two quarts, and often as much as a gallon. The patient states that she did not swallow the saliva, and insists that a large portion thus brought up came directly from the stomach. This would indicate that the pilocarpin also causes a fluid discharge from the stomach. Nausea and vomiting ceased as soon as the effect of the medicine passed off, and food was taken and retained, although previous to the "sweat" the stomach would reject every thing.

Salivary glands. In the beginning of the "sweat" water flowed freely from the eyes and nose, as well as from the mouth; but when salivation was fully established the eyes and nose ceased to discharge. The saliva was viscid and tenacious, so that to clear the mouth it was necessary to use a handkerchief. Its flow was so profuse that after thus clearing the mouth she would not have time to get a drink to quench thirst before the mouth would again be filled; so also talking connectedly was altogether prevented. Water drunk during the sweat at no time exceeded a gobletful.

Perspiration. First noticed on forehead and neck; then the skin of the whole body, which had previously been dry and harsh, became moist. When sweating was fully established the water ran in little streams over all parts of the body. In the face it was with difficulty kept out of the eyes. In five minutes the hair would be saturated, and though wiped dry it would be again soaked in a very short time. In odor the perspiration was offensive, and on several occasions had a distinctly urinous smell.

Action on heart. Pulse became rapid in a few minutes, and when the action of the drug was fully established a thumping palpitation added to the distress, aggravated by the vomiting. This thumping could be heard at a distance of six feet, and continued with decreasing violence until the close of the paroxysm. The pulse ranged from 120 to 136, and was weak and compressible.

Bowels. Just as soon as the perspiration was freely established the bowels moved—always a large action—and on several occasions were moved more than once.

Eyes. Pupils contracted to a small point. Sight became impaired at the first rush of blood to the face, and the dimness continued to increase until it was impossible to distinguish objects beyond the foot of the bed. As the effects wore off the exhaustion was extreme; pulse 130 and feeble; but there was a grateful sense of relief, and a disposi-

tion to sleep even before the sweating ceased. The head was no longer dizzy, pain in the kidneys less, stomach free from sickness, and the tongue free from coating. A quiet sleep followed, lasting several hours, from which the patient awaked refreshed and hungry.

Amount of Fluid discharged during a "sweat." This of course could only be estimated. Fluid from the acts of vomiting was caught in a basin, which was emptied when one half or two thirds full three or four times, and each time contained not less than a quart.

The blanket in which the patient was wrapped was saturated, as was also a folded sheet under the blanket. The pillow was saturated through, and the bolster beneath wet.

An experiment was made of saturating the blanket to as near as possible the same degree as when used in the sweat, and five pints of water were required. We have then this calculation:

By vomiting and saliva, ...	7 pints.
By saturated blanket, ...	5 "
By sheet, pillow, and body-clothes, ...	2 "
	14 pints.

This seems almost incredible, but I believe the amount stated is strictly within the truth.

The symptoms of congestion and inflammation in the right kidney gradually disappeared, the excretion of urine returned, and the pilocarpin was discontinued.

Chloroform by inhalation more than once was resorted to for the purpose of warding off impending convulsions. It had a very happy influence over the nervous symptoms, and appeared also to increase the amount of urine. Several times was its use followed by an increased flow of urine.

Her present condition (twenty months from first attendance), while it can not be termed convalescent, is, under the circumstances, eminently satisfactory. The right kidney seems to be well. There is still pain in the left kidney, and occasionally muco-pus in small quantities in the urine.

CHANGE IN THE COLOR OF THE HAIR.

Specimens of the hair taken November, 1879, and November, 1880, are *a light blonde with a yellow tinge.* A specimen January 12, 1881, is a *chestnut-brown*, and the fourth, May 1, 1881, *almost a pure black.* The growth of the hair has been most vigorous, and is thicker than formerly, and also much coarser.

The dark hair is much coarser than the light. Accompanying the change in the hair of the head there has been a corresponding change

of color of hair upon other portions of the body—not, however, to so marked a degree. There has been also a change in the color of the eyes—from a light blue to a dark blue.

The use of the pilocarpin was commenced on the 16th of December, 1880. The hair was first noticed to be changing color December 28, 1880.

The important question here presenting itself is, Was this change of color due to the pilocarpin or to some other cause? I have not seen such an effect noted as the result of jaborandi, yet there seems to be in this case no other reasonable explanation. It is well established that jaborandi increases the nutrition of the hair, stimulates its growth, and renders it thicker.

Changes in the color of the hair are of frequent occurrence as a result of sudden violent emotions, such as fright, great grief, or even sudden joy. The change, however, is always from dark to white.

Dr. Prentiss concludes thus:

This case has been one of unusual interest, and in closing the report it will be profitable to recapitulate briefly the points worthy of note.

1. The prolonged period of total suppression of urine. In one instance this extended over eleven days, and for twenty-one days the anuria might have been almost considered total, the daily average being less than one teaspoonful.

2. The value of the pilocarpin in eliminating urea from the system and averting the consequences of uremic poisoning. The usefulness of this drug in uremia and in the various forms of dropsy is coming to be well known, but it seldom happens that its beneficial effects are so strongly marked as in this case. The uremia was extreme, and the case at one time so apparently hopeless that it became a serious question whether we were justified in pursuing a course of treatment so distressing to the patient. Dr. Bartholow says of pyelo-nephritis, "When uremic symptoms occur the duration is measured by weeks, and but one termination is possible." (Pract. Med., p. 469.) In this case much of the success of the treatment was undoubtedly due to the patient herself. She is of a bright, sunny disposition, and has been upheld throughout her illness by a positive determination *not to die*, and she seconded most faithfully the efforts of her physician in her behalf.

3. The amount of fluid eliminated during a "sweat." I have hesitated to state the amount (fourteen pounds), which is about one sev-

enth of the body-weight, because it seems almost incredible; but a careful reconsideration satisfies me that the statement is not exaggerated. I think it probable that the amount was increased by the hot-bottle pack.

4. The effects produced in this case by the pilocarpin upon the stomach and bowels would indicate that it excites a watery discharge from their mucous membranes as well as from the skin and salivary glands.

5. The hypodermic use of pilocarpin. The hydrochlorate is perfectly soluble, and its use under the skin is unattended with pain or irritation. Its action hypodermically is more prompt and the effects are sooner over than when it is administered by the stomach. It has been recently stated that the jaborandi contains another alkaloid, jaborin, which is antagonistic to pilocarpin. If this be true it is decidedly preferable to use the pilocarpin rather than the leaves.

6. The change in the color of the hair. If I have properly attributed this to the action of the medicine it would seem to add another to the marvelous effects of this agent upon the human system.

7. There was no dropsy in this case. In two other cases of pyelonephritis occurring in my practice which resulted fatally there was no dropsy. Uremia, or rather anuria, is not sufficient to cause dropsy, but combined with a grain of albumen (albuminuria) dropsy soon results.

This is certainly a most extraordinary and interesting case. We have only given extracts from the author's excellent report.

While Dr. Prentiss is probably correct in stating that the color-change in hair from sickness, fright, etc. is always from dark to light, this is not the case with the skin. In Addison's disease more or less melanoderma occurs, as also in chronic hepatic derangement from malaria; and in vitiligo deep cutaneous discoloration takes place. Erasmus Wilson mentions the case of an Italian who from violent fright got a severe fever which was followed by general blackness of the skin. An acquaintance of the writer once related to him the case of a valuable horse, one of a pair, in which a severe and painful injury—a partial tearing away of a hoof—was followed by a gradual but complete change from a jet-black to a bay color.

THE DURATION OF PREGNANCY.—Helen Idleson, M.D., in the *Med. Wochenschrift*, sums up the results of her investigations as follows: 1. The duration of pregnancy amounts to 278.8 days, or nearly forty weeks. 2. The sex of the infant influences the duration, this being longer in female infants. 3. The heavier the child the longer is the duration (?). 4. The duration is longer in multiparæ than in primiparæ. 5. The younger the woman the longer is the duration. 6. The duration is longer in married than in unmarried women. 7. The first movements of the child are felt, on an average, on the one hundred and thirty-fifth day, but later in primiparæ than in multiparæ.

BENZOATE OF SODA IN ACUTE RHEUMATISM.—Dr. Macewan has (British Medical Journal) used benzoate of soda in the treatment of acute rheumatism. The results which he has obtained from it have been favorable, and though the cases quoted are too few in number to warrant any confident conclusions, they are sufficient to show that there is a strong probability of benzoate of soda being a remedy of considerable efficacy in the treatment of rheumatic fever. He gives it as salicylic acid is given and in full doses. It does not produce the unpleasant effects of the salicylic acid.

Notes and Queries.

A PHARMACIST OF THE PERIOD.—R. K. Smither, in a paper read at the July meeting of the Erie County Pharmaceutical Association, says (New Remedies, Sept. 8):

His name is Bolus. At a tender age and at a compensation of a dollar or two per week he is admitted to the Galenical sanctum of the corner drug-store. He has no time to waste on theory, but in stern practice he investigates the mechanical action of the symbolic pestle and mortar upon the crude elements of the ordinary pharmaceutical preparations, experiments with the labor-saving action of certain chemical reagents upon the metallic surfaces of the show-cases, learns the chemistry of the sparkling soda-water with its sophisticated cream-syrups, the antiquity of the foaming "mead," and the botanic composition of the healthful beverage from the birch, hitherto known to him only as an external application. In due time he takes his stand behind the mystic prescription-case and begins to decipher the hieroglyphic characters and erratic abbreviations of the modern prescription. He is a stranger to chemical nomenclature and unversed in the first elements of botanical classification; yet his pills are round and firm, his powders uniform, his emulsions homogeneous and permanent, and his preparations generally evince some practical knowledge of his calling.

It is true he is required to be on duty eighteen hours out of twenty-four, the remaining six (with occasional interruptions on the part of the night-bell) being spent on a luxurious couch which is compactly stored under the prescription counter. But this is fortunate; for, having industriously labored five or six years at his calling, he now receives the magnificent salary of six or eight dollars weekly, and much leisure might tempt him to extravagance.

At length by rigid economy accumulating a small amount of the "needful," he selects a location (usually a corner) on which to hoist his gilded mortar and display his colored bottles. He in turn dispenses "the best soda in the city," "compounds prescriptions accurately at all hours of the day or night," and furnishes "a clear Havana cigar for five cents."

He is the most accommodating individual extant. Having learned

that "civility costs nothing," this constitutes his principal stock in trade. He keeps constantly on hand an ample supply of the several denominations of postage-stamps, in which he realizes so large a margin that in case a customer has "no small change" he will cheerfully mark it down (on the ice) and will politely attach the stamp and deposit the letter in the box on the opposite corner.

He is a regular subscriber to the City Directory exclusively for the use of his patrons, and is invariably ready to search for such addresses as may be applied for. An inexhaustible stock of expensive chromolithographs supplies the youthful demand for "picture-cards." He is highly gratified to be frequently notified by his patrons that they are morally certain his profits average several hundred per cent, and considers himself slighted if not treated at least once daily to a recapitulation of some of the usual anecdotes illustrative of the popular exaggerated idea of his margins. This cheers him up and makes him suspect that the attenuated condition of his bank-account may, after all, be due to some mathematical error. His telephone is at the disposal of the public, and he will consider it a privilege to be allowed to suspend the manipulation of some important pharmaceutical preparation to call Mr. Jones at his office and inquire what time he will be home to dinner. If Mrs. Jones prefers not to wait, the answer will be cheerfully sent a couple of blocks to her residence.

As a waiting-room for the street cars Bolus's room is preëminent. Tickets are retailed singly and on long time, and observation rigidly made as to "what time the last car passed;" also calculations as to when the next may be expected. The exact time is also furnished, together with any desired information regarding the running of trains or boats.

Our pharmacist is the factor of a celebrated *cough-mixture*, and, not to be behind on the popular terminology, he christens it "*coughaline*." It is recommended as an "infallible remedy" for all diseases of the throat or lungs, with the possible exception of "the last stages of consumption." With the first package issued he assures the confiding public that it has been employed by eminent physicians for years; and as there are numerous counterfeits abroad, warns them that the genuine "bears the fac simile of the discoverer; thus, Benjamin Bolus." He advertises it in the following striking and attractive newspaper local: "Cough while you can, for after taking one bottle of Bolus's *Coughaline* you can't. Sold by druggists. Price 25 cents."

To the physicians with whom he comes in contact Bolus is obsequious in the extreme; for although he has a lingering suspicion that

the mere possession of an average medical diploma is not necessarily a guarantee of superior ability, intelligence, or integrity, yet it is customary, and consequently politic. He keeps in stock all the placeboic "*elegant preparations*" that are advertised in the current medical journals, and is ever ready to order "by request" a quantity of any new or expensive remedy his medical patrons may wish to try. It is more than likely to prove overestimated and n. g., and nine tenths of the investment will remain permanent; but this enables our pharmacist to accumulate a varied collection of specimens as a practical illustration of the "progress of pharmacy" in this particular direction.

When requested to prescribe for some minor ailment in a customer Bolus declines to so violate his ethical obligations to their family physician; but, recommending the employment of the latter, tenders the gratuitous use of his telephone for the purpose. He is highly gratified to be subsequently informed that the F. P. on his arrival dispensed the necessary medicine from his pocket-case. His medical friends, as a special concession, tolerate his keeping the ordinary patent-medicines with but a moderate amount of "kicking;" and though he may not personally advocate their use, he can not afford to dispense with his share of the trade; for although, unlike his alchemic ancestors, Bolus never hopes to discover an abundant source of gold, yet he finds a reasonable equivalent in national currency necessary to defray family expenses.

In the foregoing exaggerated picture of the pharmacist of the day it must be admitted there are a few grains of truth. That our profession does not rank in the dignified and elevated position to which it is entitled, is undeniable. To begin with, young men of education and ability see very little inducement in the weary hours and meager compensation which in the present comminuted state of the business we are able to offer, and when employed the routine drudgery is so excessive that no time is left for study, research, or investigation. This state of affairs is largely attributable to unlimited and unscrupulous competition, adventurers taking up the business without the least knowledge of it, but who are attracted by the popular fallacy that in it they can realize large fortunes from a small investment. We are gratified to believe, however, that the public are beginning to awake to the importance of purchasing their pharmaceutical supplies from those who can discriminate between active and inert qualities of drugs; who understand the combining affinities of potent remedies; have sufficient knowledge of toxicology to detect overdoses or dangerous combinations, should they occur; and last, but not least, a

conscientious sense of moral obligation in furnishing an article the quality of which can not be judged by the purchaser. The pseudo druggist, having none of these *professional* qualifications, seeks to compensate therefor by the purely *tradesman's* tactics of "cutting prices," frequently carrying it to a point below the cost of honest production, and thus, we regret to say, capturing some of the unthinking masses. Our legitimate pharmacist, though poor, is correspondingly honest, and has never learned that quinine can be dispensed from the cinchonidia-bottle, and that the expensive standard pharmaceutical preparations can be palmed off on afflicted humanity at two thirds their pharmacopeial strength.

"Competition is the life of trade," and so far as pharmacy can be regarded as a trade we do not shrink from honorable competition. But ours is not simply a trade, but a profession, and one for which, in justice to the public as well as ourselves, the laws should prescribe a standard of qualification. While the fitness of the writer of a prescription is examined into, the ability of the *dispenser*, from whose incompetency it may prove a ticket to that "bourne from whence no traveler returns," is left entirely to the judgment of the purchaser, who must rely to some extent on appearances and trust a good deal to Providence. In our efforts to elevate our profession in this State to the position it enjoys in European countries and to that already assigned it in several States of our Union, it is gratifying to know that the sympathies of the more intelligent portion of the community are with us, and particularly of that class who are best able to judge of the need—the physicians; and if our pharmacy bill in the present legislature is pocketed by a chairman of assembly committee, who, being a notorious manufacturer of nostrums, can not be expected to favor any elevated standard of pharmacy, our motto must be "*nil desperandum.*"